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CLINICAL LECTURES,

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BY

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MORBUS CORDIS.—BRONCHITIS.—ANASARCA. HYDROTHORAX.—APOPLEXIA.

GENTLEMEN:—The first case to which I have to direct your attention to day is that of Sarah Shaw, ætat. 54, admitted the 5th of this month, with disease of the heart, and who died on the 18th, after the short space of about twenty-four hours, from an attack of apoplexy. The following is the history of her case:—

She was a widow, of a spare habit, sanguine temperament, fair complexion, the mother of five children. Her father died of asthma, her mother of dropsy. She was formerly in this hospital, and at that time the impulse of the heart was too strong, and heard over a larger extent than natural. The apex of the heart was situated much farther to the left than is usual; a faint bellows-sound accompanied the systole in this situation, and a slightly morbid sound the diastole; the rhythm was regular. Respiration was deficient; and there were some sonorous and mucous rattles, especially on the left side posteriorly. She was treated principally by diuretics, and was discharged on the 15th of October, the too strong impulse of the heart alone remaining. She continued well until Christmas week, when she became subject to a constant pain in the left side, with dyspnœa, followed by loss of appetite, and swelling of the legs. Three weeks ago cough supervened, with some expectoration; all the symptoms increased gradually in severity up to the day of her admission.

When examined at this period the impulse of the heart was found to be too strong, and heard over too great an extent. A slightly morbid sound existed at the base of the heart, and accompanied the diastole; and also to the left of the apex, along with the systole. The dulness, on percussion over the cardiac region, was too extended. Mucous rattles were heard extensively over the anterior and posterior surfaces of the chest, and the respiration was quickened; cough worse at night, with considerable orthopnœa; pulse very small and feeble; much œdema of the ankles and legs, which are painful from distention; hands and feet very cold; and, together with the nose and lips, much congested; urine very scanty.

You will readily perceive, by the physical signs in this case, that the heart was the principal seat of disease and the organ primarily affected; the bronchitis and œdema intercurrent affections, and the consequences of the disease of the heart. The too great impulse of the heart indicated the existence of hypertrophy, or an increase of the muscular substance of the walls of this organ; and the great extent of the surface of the chest over which the sounds of the heart were heard likewise indicated that the hypertrophy was accompanied with dilatation.

The morbid sounds which accompanied the systole and diastole, or the first and second sounds of the heart, indicated that, in addition to the hypertrophy and dilatation, there was likewise disease of the valves; of the mitral valve, from one of the morbid sounds occurring not merely along with the first sound of the heart only, but from its being heard to the *left* of the apex, and its being loudest there; and of the semilunar valves of the aorta, from the other morbid sound being heard along with the second sound of the heart only, and in the situation of these valves. The sonorous and mucous rattles were the obvious signs of the presence of bronchitis; and, as they were heard equally well anteriorly and posteriorly, on both sides of the chest, the bronchitis was, consequently, equally severe and extensive in both lungs.

From these physical signs we could have no difficulty in establishing the diagnosis. The case was entered as one of hypertrophy and dilatation of the left ventricle of the heart, and bronchitis. To those of you, however, who have just entered upon the

practical study of diseases, I may remark, that we arrived with equal facility and certainty at this diagnosis, only by the means of auscultation and percussion, without which, as was almost, if not always, the case, before the application of these means of diagnosis, we would have entertained very crude notions, indeed, of the nature of the case. We might have overlooked the disease of the heart altogether; or, at most, have discovered some increased action of this organ. But we could have had no precise conception as to the condition of the heart on which the increased action depended; and had we ventured an opinion on this important point, it would, in all probability, have been an erroneous one, inasmuch as the character of the pulse, which was *very small and feeble*, and which was considered of the highest diagnostic value in diseases of the heart, before the discovery of auscultation, was in this case the very reverse of what would have been conceived to be the natural consequence of increase of the muscular substance and capacity of the central organ of the circulation. Still less could the morbid condition of the valves have been detected without the use of this invaluable means; and although, in this case, it was of minor importance, as the hypertrophy and dilatation constituted the most important part of the disease of the heart, and, indeed, of the case as a whole, it is far from being always so, as various morbid conditions of the valves occur, and constitute not only the original cause of many forms of disease of the walls and cavities of the heart, but frequently the only or principal cause, as I explained to you in a former lecture, of disturbance of the circulation, and its numerous consequences. Nor does the diagnostic value of the signs furnished by auscultation and percussion, in regard to the bronchial affection and œdema of the lower extremities, appear less important. It is true that both would, or might have been, detected without the use of these means, but their dependence on the disease of the heart, and their proximate cause, or their special morbid condition, viz., capillary congestion, from a mechanical obstacle to the return of the venous blood through the lungs, could not have been detected, or but remotely surmised. Although you have had already numerous opportunities of convincing yourselves of the value of auscultation and percussion, as to the physical signs with which it puts you in possession in diseases of the circulatory and respiratory organs, I take advantage of this occasion to urge you to cultivate both with all the care and diligence to which they are so justly entitled, and especially in the wards of the hospital, where you have the means of doing so, and where you have the advantage of the guidance of Mr. Taylor, whose practical knowledge of both, no less than his zeal in the cultivation of this, as well as other departments of his profession, and his willingness to assist you, are already well known to you. But let us return to the history of the case. With a clear view of the pathology of the disease of the heart, its complications and consequences, the prognosis could not be otherwise than unfavourable. The patient had not only suffered for a considerable time from the heart affection, but bronchitis and anasarca had before supervened, and brought her to this hospital. There the complications of the disease of the heart only were removed, the physical signs of the hypertrophy and dilatation remaining, modified in intensity, by the removal of the congestion, local and general, and of the effused fluids, together with the quiet and repose obtained by the patient during her stay in the hospital. The recurrence of the disease in the same form, therefore, as was to be expected, or rather, it should be said, as certain, from the permanency of the organic affection of the heart, rendered the prognosis much more unfavourable than before, and afforded but slight hope of the recovery of the patient. The curative indications were obvious, viz., to remove or lessen the congestion, the immediate cause of the general disturbance, of the dyspnœa, and other bronchial symptoms, and of the anasarca. From the feeble state of the patient bloodletting was considered inadvisable; she was, therefore, ordered a diuretic mixture, composed of the tincture of digitalis, tincture of squills, and iodide of potassium; and the bowels to be kept open by the use of the compound powder of jalap.

On the 9th, four days after the employment of these remedies, it is stated in the report that the urine was increased in quantity; the feet and legs were less swollen; the breathing much easier, and the cough less.

On the 12th the improvement was advancing, and the pulse fuller and stronger, and of natural quickness. On the 16th the œdema had left the legs, and appeared around the elbows the preceding day. The expectoration, however, had become more profuse, and the breathing less free; and on the following morning the patient was attacked with partial hemiplegia of the right side of the body, some power of motion being retained by the leg and arm; the sensibility of both was also impaired. She appeared to understand the questions put to her, although with difficulty, and gave rational answers, but her enunciation was thick and imperfect. The tongue, when protruded, turned a little to the right side; no difference was observed in the size or contractility of the pupils. The pulse was slow, weak, and very irregular; the head was not hotter than other parts of the body. Cupping at the nape of the neck to eight ounces, was ordered, but no more than three

ounces could be obtained. At four o'clock in the afternoon there appeared to be rather more power and feeling in the leg and arm; she expressed herself better, and was perfectly rational, but the action of the heart was still tumultuous and extremely irregular. The pulse was also very slow, 45, abrupt, and extremely irregular. Death took place at six o'clock the following morning.

Before proceeding to point out to you the morbid appearances found after death, I have to note two or three circumstances which were observed during the life of the patient, which were not entered in the case-book.

Soon after the admission of the patient, instead of a slight morbid sound to the left of the apex, there was heard a much stronger sound, having a striking resemblance to that produced by planing a narrow piece of rather hard wood. Mr. Taylor called it an *acute* planing sound, not only from the character which it presented, but from the difference between it and a sound of the same kind which was observed in the patient, in the same situation, when she was formerly in the hospital, and which had a lower or graver tone. There was also observed a marked swelling in the situation of the internal jugular, especially during cough, both in this and the former attack. I point out these physical signs at present, in order that we may the more satisfactorily explain their production by a reference to the morbid states of the heart and its valves, which I shall presently show you.

Although apparently unconnected with this case, but as a subject which I shall probably have an opportunity of bringing before you under a more tangible and satisfactory form, I may state that the urine of this patient was examined, and found to be albuminous. It was examined the day after her admission, and besides being albuminous and slightly acid, was of low specific gravity, viz. 1010. Six days after, and notwithstanding that considerable improvement had taken place, it was still very albuminous, although acid, and 1013 specific gravity. I state this fact in regard to the albuminous state of the urine because, as you shall presently have an opportunity of judging, both kidneys presented no trace whatever of the *granular* morbid state of these organs which Dr. Bright regards as characteristic of an organic change which they are said to undergo in dropsy, with an albuminous state of the urine. In this case there was a "very albuminous" state of the urine, and the kidneys presented no other alteration than venous congestion; they were, perhaps, somewhat diminished in bulk, and felt firm, owing to an œdematous state, in consequence of the congestion. In another case of disease of the heart, the history of which I shall relate to you, there is also a very albuminous state of the urine, and which there is no reason to suppose is connected with disease of the kidneys.

I should also have mentioned that slight effusion into the cavity of the pleura was detected by percussion, and at the same time a modification of the voice was heard having some analogy to œgophony.

I shall now point out to you the morbid appearances found after death in the body of this patient.

Post-mortem 34 *hours after Death.*

No particular external appearance, except slight œdema around the right elbow-joint.

Head.—Several ounces of fluid blood escaped from the divided vessels of the scalp and the longitudinal sinus. The membranes of the brain did not appear to contain an anormal quantity of blood, although, in two or three spots, on the upper part of the hemispheres, there was a slight effusion of serosity in the tissue of the pia mater; nor did the substance of the brain or cerebellum present any marked appearance of congestion. The ventricles contained very little serosity. The only appreciable lesion met with was a small effusion of blood, slightly coagulated, of a flattened globular form, about half an inch in breadth, and rather more than a quarter of an inch in depth, situated at the anterior extremity of the left corpus striatum, the surface of which was but slightly raised above the level of that of the ventricle; it had replaced by rupture a portion of the corpus striatum, but was in close contact with the surrounding substance of this body, which presented no discolouration, vascularity, or softening.

Chest.—A small quantity of serosity was found in the cavity of the pleura, and old but loose cellular adhesions laterally and superiorly on both sides. Both lungs were partially collapsed, and their interlobular divisions strongly marked with black pulmonary matter. They felt, when pressed between the fingers, soft and spongy, somewhat woolly or cottony, and with very slight crepitation; they contained a much smaller quantity of blood than usual; there was hardly any œdema of them, even posteriorly, and the anterior portions were, if anything, rather dry. The bronchial mucous membrane was greatly congested, being of a purple-red colour, of considerable intensity; and the bronchi contained a large quantity of muco-puriform fluid.

The pericardium contained about two ounces of clear serosity. The heart, situated transversely, with its apex turned to the left, and upwards, was greatly enlarged,—nearly twice its natural bulk. This increase of bulk depended chiefly on hypertrophy of the walls, and dilatation of the cavity of the left ventricle. The mitral valve presented along its margins several thickened and in-

durated points, as well as at its base, towards the semilunar valves; but the most marked alteration was the shortening of the chordæ tendiniæ of one of the columnæ carneæ, in consequence of which one of its lappets must have been drawn obliquely across the orifice of the ventricle during the systole, and thereby have constituted an imperfect state of occlusion. The valves of the aortic orifice were also diseased. There were several thickened and indurated points at their edges and bases, and one of them presented an opening sufficiently large to admit an ordinary quill. The cavity of the right ventricle was increased in capacity; its walls, however, were of their normal thickness. The auriculo-ventricular orifice of this side was very large, admitting freely the four fingers and thumb, so that its valve could not have completely closed it. The left auricle was not enlarged, but the right was considerably so, without being thickened. This auricle was distended with coagulated blood, communicating with and filling the right ventricle. The left ventricle was also filled with blood, not so much coagulated, and containing much less fibrine, of a less firm texture than that contained in the right cavities.

Abdomen.—The stomach, much contracted, occupied an oblique position along the edge of the left lobe of the liver, a position which appeared to have been given to it by the liver, the surface of which presented a rather deep and broad indentation, running transversely across its convex surface, obviously the consequence of long-continued tight-lacing. The upper portion of the right lobe of this organ had also, from the same mechanical cause, assumed a knobbed appearance, and projected considerably into the cavity of the thorax. The general surface of the visceral peritoneum presented a purplish-grey colour, indicative of venous congestion. This pathological state was very marked in the whole of the mucous membrane of the stomach, the colour of which approached that which would have been produced by smearing it over with the lees of port wine. This membrane was also thickened but not softened. The substance of the liver was much congested, as well as that of the kidneys, which I already noticed. No other morbid appearance was observed except the conversion of one of the ovaries into serous cysts, and the commencement of the formation of phlebolites in some of the veins of the broad ligaments.

Let us now see how far these morbid appearances enable us to explain the signs and symptoms observed in this case, and the cause of death. A few remarks will suffice on this head, as regards the morbid condition of the heart, and the physical signs which were observed during life. There was great hypertrophy and dilatation of the left ventricle, and the semilunar and mitral valves were diseased, and in such a manner, I believe, as to give rise to the morbid sounds observed by us; and I may here remark that these sounds were produced by regurgitation; that heard to the left of the apex, by a certain quantity of blood repassing into the auricle during the contraction of the ventricle; and that heard at the base of the heart, at the upper third of the sternum, by a current of the same fluid returning into the ventricle during dilatation, through the perforated semilunar valve. I must, however, observe, that the first morbid sound was not permanent; at least, it was not heard on one occasion by Mr. Taylor, when he sought to point it out to some of you, although he had distinctly heard it a short time previously. I believe I examined the patient the same day, and heard it as marked as before. This absence of the morbid sound, however, must not be considered as in any degree weakening the evidence we have before us of its being generated by the diseased state of the mitral valve which I have pointed out to you; for such an occurrence is by no means rare, and probably depends on the same cause or causes which modify so frequently the *intensity* of the anormal sounds observed in the region of the heart. A difference in the quantity of blood contained in the ventricle, in the velocity of this fluid, and, perhaps, in the degree of muscular energy of the heart, may, either singly or combined, effect such a change. The dilatation and imperfect occlusion of the right auriculo-ventricular orifice was such as to allow the blood to return in part into the auricle; and hence the swelling observed in the internal jugular. No morbid sound, however, was heard to accompany this state of the auriculo-ventricular orifice,—a circumstance which may, perhaps, be accounted for by the healthy state of the valve, and the large size of the opening through which the blood regurgitated. But as this is a matter of minor importance I shall pass on to the other alterations observed in the bronchi and lungs. The existence of the bronchitis was very conspicuous, and its congestive character, as I have before explained to you, was peculiarly characteristic of its mechanical origin. Although we met with remarkable appearances in the pulmonary tissue itself, no note was made of any accompanying physical signs during life. Both lungs were in an emphysematous state, and without congestion or œdema in a case of such extensive disease of the heart, from which these, its consequences, were so considerable in several other organs, less favourable to their occurrence than the lungs. I cannot explain this otherwise than I have already done in the case of Gibson, in which a similar state of the left lung was observed. You will recollect that this patient died from disease of the heart, bronchitis, and anasarca; and that although we found the right lung dis-

tended from congestion and œdema, there was very little of either in the left, which was affected with emphysema, as in the present case. I then stated that the accumulated air was the only reason we could assign for the absence of congestion in the left lung, and consequently of œdema. The presence of emphysema being the real cause of the absence of congestion of the lungs in these cases of disease of the heart, was rendered, I think, quite conclusive in Gibson's case, as there was no emphysema of the right lung, in which the congestion was so great, whilst there was hardly any congestion in the left lung, in which the emphysema was both extensive and considerable, although both lungs were equally exposed to the same cause of congestion.

The only other circumstance to which I shall allude regarding the physical signs of disease of the chest, is the occurrence of a morbid resonance of the voice, having a slight resemblance to œgophony. The occurrence of this imperfect œgophonic sound was, no doubt, owing to the presence of a certain degree of hydrothorax, although we found hardly any effusion in the cavity of the pleura after death, but which, no doubt, like the œdema of the legs, had been removed by the diuretic effects of the medicines administered. The small extent of the hæmorrhage, and the very limited injury to the structure of the brain, to which it had given rise, are circumstances which, connected with the suddenly fatal consequences in this case, are well calculated to excite your surprise. Partial hemiplegia, however, has often been observed to follow a very slight degree of cerebral hæmorrhage; but, so far as I am aware, cases are rare in which it has proved so suddenly fatal when so limited in extent, and accompanied by so little congestion or effusion as in this case. However, we shall feel less surprise at the fatal result, if we reflect on the morbid conditions of the heart and lungs, and of the general circulation, with which it was complicated.

A slight modification of innervation, such, probably, as took place in this case, was sufficient to weaken, if not to paralyse, the action of the heart and respiratory muscles, and thereby produce death by asphyxia. This, indeed, seemed to have been the mode in which death was effected, and it appeared to have taken place principally through the medium of the heart, the cavities of which, not only on the right side, particularly the auricle, having been found distended, but also those on the left side, filled with blood.

The degree of paralysis in this case was, however, proportioned to the limited extent of the cerebral effusion; and there is every reason for believing that the patient, had she been in other respects more favourably circumstanced, would have speedily recovered from it. It occupied that side of the body opposite to the hemisphere in which the effusion took place. It is, however, worthy of remark, that both limbs were affected, although the effusion was confined to the corpus striatum, a proof, amongst many others on record, that we can, as yet, assign no special seat to cerebral hæmorrhage in paralysis of particular parts of the body. According to the opinions of some French pathologists, paralysis of the inferior extremities only should accompany effusion into the corpus striatum; and paralysis of the superior extremities effusion into the optic thalamus of the opposite sides respectively. But we have had in this case paralysis of both the inferior and superior extremities of the right side, and the effusion was not only confined to the corpus striatum of the left side, but small in quantity, and without any complication, such as congestion or the escape of blood, into the cavity of the lateral ventricle, which could have implicated in any way the optic thalamus. I may also observe that there was slight paralysis of the muscles of one side of the tongue, and that the point of this organ, when protruded, projected, as is usually the case, slightly to the right or paralysed side.

MORBUS CORDIS.—EMPHYSEMA OF THE LUNG.

The next case to which I wish to direct your attention is that of Sarah Shirrafs, æt. 20, also affected with disease of the heart, considerable anasarca, and slight ascites; and, also, as in the former case, complicated with congestive bronchitis, and a considerable degree of emphysema. A period of only four months is assigned as the commencement of the disease of the heart.

The patient states that at that time, after stooping and violent exertion, she felt a stabbing pain in the region of the heart, and that soon afterwards she had palpitation, followed by great difficulty of breathing, cough, and expectoration. These symptoms continued to increase; and six weeks ago she observed, first, that her ankles began to swell, and, subsequently, her legs, thighs, and abdomen. On her admission, on the 19th, the anasarcous state of the legs and thighs was very considerable; there was slight ascites, slight tumefaction of the face and eyelids, and lividity of the lips; more considerable in the skin of the legs; great dyspnœa; palpitation on the slightest exertion; frequent and troublesome cough; glairy, frothy, but not abundant, expectoration.

The examination of the chest presented the following signs:— *Left* side of the chest more prominent than the right; the right depressed; left lung clearer on percussion, posteriorly, than the right, and transmits, anteriorly, scarcely any vesicular murmur; respiratory murmur stronger in right lung;

onorous and sibilant rattles in both lungs, but more so in the right lung.

The impulse of the heart is too strong and much too extended; the rhythm is very irregular and with occasional intermittence. There is a double bellows-sound, both heard chiefly at the basis of the heart and upper third of the sternum; the first sound the *louder*, and accompanies the systole of the heart; the second characterised by its clearness, and a slight whizzing rush downwards, as if produced by the regurgitation of a small quantity of blood at the aortic orifice, during the diastole of the heart, or synchronous with the second normal sound, the strength or character of which is not sensibly altered.

The patient suffers no pain except from the distention of the anasarcous parts; sleeps little in consequence of not being able to lay in the recumbent position; pulse 80, weak and compressible; tongue natural; bowels confined; urine small in quantity, high-coloured, and passed with pain.

This patient has now been under treatment rather more than one month, and is at present, comparatively speaking, well. In the course of a week the difficulty of breathing and oppression had considerably diminished; the cough had become less troublesome; she could lay for some time in the recumbent position, and the œdema of the extremities was subsiding. During the two succeeding weeks she continued gradually to improve, and has done so up to the present time. The œdema has entirely disappeared; the patient is able to get up, and she enjoys tolerable repose at night. Diuretics were the only remedies employed in this case, the indications of treatment being in all respects the same as in the preceding case. The formula employed was the following:—

Tincture of squills, fifteen drops;
Tinc. of digitalis, ten drops;
Acetate of potass, twenty grains;
Spirit of nitr. æther, half a drachm;
Infusion of horse radish, ten drachms. A draught to be taken thrice a-day.

She took also for some time at night, a pill composed of—

Extr. of hyoscyamus, two grains;
Calomel, half a grain;
Compound squill pill, two grains; and the bowels were kept open by the occasional use of the senna draught.

I bring this case under your notice for several reasons; first, that you may compare it with the preceding one, to which it bears a considerable resemblance in all its more important features; secondly, that you may satisfy yourselves that although the more distressing complications have nearly disappeared, the essential cause of them—the morbid condition of the heart—still exists in the same state in which it was when the patient was admitted; and, thirdly, that you may also satisfy yourselves of the presence, in this case, of that emphysematous state of the lungs, which I have pointed out to you as having been present in the preceding case and that of Gibson, although its presence in them was not detected, or overlooked, during life. It is particularly marked in this patient, not only from the very clear sound elicited by percussion, and the absence in some parts, and the diminution in others, of the respiratory murmur, but also from the form of the chest, and particularly the less marked state of the intercostal spaces (in a lean woman), and the fulness of the infra and supra-clavicular spaces. I recommend you to satisfy yourselves of the presence of this important pathological condition of the lungs, as a frequent, if not a constant, complication of disease of the heart, with congestive bronchitis. I shall, on some future occasion, direct your attention to it, in relation to its nature, and as a form of emphysema, different from those forms of the disease described by Laennec under the appellations of vesicular and interlobular emphysema of the lungs.

I have already said that the morbid condition of the heart is essentially the same as when the patient entered the hospital. You will find the impulse still too strong and too extended; the double bellows-sound persists; the first, the louder of the two, is prolonged into the second; it is, therefore, longer in duration than the second; they are both heard in the situation of the aortic valves, and, probably depend on rough induration or ossification, with retraction of these valves.

You have also an opportunity of detecting, by its physical signs, hydrothorax in this case. You will find, at least such was the case two days ago, that the presence of the fluid in the cavity of the pleura is marked by complete dulness on percussion, and absence of all respiratory murmur over the inferior third of the back, when the patient is in the sitting posture, and in the direction of a horizontal line, immediately above which respiration is heard, and the sound is clear on percussion. We have here, however, no resonance of the voice, as was heard in the other case; and were I to assign a reason for the difference, it would be the greater extent and degree of the emphysema in this case.

I have already stated to you that the urine in this case, as in that of Shaw, was albuminous, and of diminished specific gravity, when examined between two and three weeks ago, and that we have no reason for supposing that this patient is affected with disease of the kidneys.

CLINICAL OBSERVATIONS

ON SOME MORBID AFFECTIONS OF THE SPINAL MARROW AND ITS MEMBRANES.

By R. HUTCHINSON, *M.D., M.R.C.S.,*
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THE attention of medical practitioners has, during the last few years, been attracted to the physiology of the spinal marrow, principally from the valuable and beautiful inquiries of Dr. Marshall Hall, acknowledging it as an independent centre and source of power, both in its healthy and its disturbed functions; the latter, however, have not, at present, received that accumulation of pathological facts and experience which time alone and the combined observations of numbers engaged in the practice of our profession can satisfactorily afford. It is not presumed that the following cases and observations will afford any better than a trifling addition to what has been already obtained, yet it is hoped they may not be considered as an utterly worthless one. It appears to be the duty of all engaged in the practice of our profession to add the best they may be enabled to collect.

The morbid affections of the medulla spinalis itself may be practically divided into those originating in itself, and into those transmitted to it by irritation existing in some other part of the body; thus, we observe primary inflammation of the spinal chord, with its terminations, which, however, more frequently is induced by accident, causing concussion and consequent inflammation, than idiopathically, or without apparent cause; the reflected irritation, producing a disturbed state of its functions, being the most usual affection, as is exemplified in chorea, uterine irritation, the convulsions of infants, &c., where a morbid excitement existing in some distant part, as from teething, worms, and other disordered states of the intestinal canal, communicates an irritation to the spinal chord, which is reflected upon and transmitted to the muscles of the limbs, &c., as evinced by their irregular and incontrollable convulsive actions. The morbid conditions to which the membranes covering the spinal chord are subjected, are essentially primary; and one of the most usual of these, according to my experience, when not produced by mechanical violence, is inflammation arising during the progress of acute rheumatism, affecting the joints; and which, I believe, has not, at present, received the general attention of our profession. It is to this rheumatic inflammation of the membranes of the spinal chord that I shall, in the present communication, direct my observations.

Pericarditis and endocarditis are, at the present period, universally acknowledged by our profession as common attendants upon the course of acute rheumatism; the fibrous structure of the pericardium, and its intimate connection with the large hollow muscle, the heart, appear to render it particularly susceptible of rheumatic inflammation, which is communicated to, and extended upon, the membrane which lines it, and thence to that which is found within the heart itself. The same pathological course is taken when the theca vertebralis is attacked by rheumatic inflammation, although not by any means is it of such frequent occurrence; an inflammatory action, following or accompanying acute inflammation in the joints, is established in the theca vertebralis, and hence communicated to the arachnoid membrane, but not, as in the pericardium, productive of similar results; the most ordinary termination to inflammation of the pericardium is observed to be very rapidly-occurring adhesions, which, subsequently, from their continuance as a constant impediment to the free action of the heart itself, gradually induce a change in the form of its cavities; but, in the dura mater and theca vertebralis, when inflammatory action is communicated from them to the membranes immediately in contact with them, it is remarked that adhesion is the most rare of the ordinary terminations of inflammation, and that effusion of fluid, productive of its obvious results in such a situation, is by far the most common result. When the fibrous structure of the theca vertebralis is taken into consideration there does not appear to be any cause for surprise that it should be subjected to similar pathological conditions with other parts of the body similarly constituted; and it is quite evident that irritation existing in the membranes must communicate a disturbed state to the functions of the spinal marrow itself.

During the existence of acute rheumatic inflammation in the joints, the symptoms indicative of its commencement and communication to the theca of the spinal marrow are, first, an increased sensibility, affecting the surface of the lower extremities, the pain not being confined to the joints themselves, but extending along the muscles and upon the skin, communicating an exaggerated sensibility to the surface of the body, and this to an excessive degree, so that the slightest movement or touch is productive of considerable pain. The skin retains its natural appearance, but is dry and harsh, the perspirations usually accompanying the first stage of acute rheumatism being, for the most part, suspended. This increased sensibility of the surface extends itself from the lower extremities over the

body generally, and thence to the upper extremities, and is frequently attended with spasmodic action of the muscles of the extremities, and permanent spasm of those of the abdomen. Gradually the power over the limbs becomes lost, and perfect paralysis of the whole body succeeds; but the abnormal sensibility of the skin continues until the patient is worn out by loss of rest and acute suffering. These symptoms are accompanied with the ordinary ones attending pressure upon the spinal marrow, such as paralysis of the sphincters, &c.

Case 1.—Thomas Smith, ætat. 23, assistant in a draper's shop, had, three months ago, acute rheumatic inflammation of both knees, right wrist, and both elbows, for which he was bled and purged with relief. Admitted into the hospital March 19, 1833. Is now suffering under chronic pains in the right hip, the loins, and the right leg; in the leg the pain is accompanied by cramps and occasional spasms, as of a neuralgic character; pulse feeble, not frequent; bowels rather confined; urine depositing a brick-dust coloured sediment.—Ordered, a purging powder of calomel and jalap, every third morning; two drachms of subcarbonate of iron, three times a day; a hot bath twice a week, and acupuncture with eight needles in the neighbourhood of the sciatic nerve.

March 23. Thinks he has taken cold after the hot bath; pains in the hip are much more constant, but greatly aggravated at night; no fever.—Continue the subcarbonate of iron; repeat the acupuncture; and give at night ten grains of calomel, and one grain of solid opium; in the morning a compound jalap powder purge.

He continued improving, with less pain, until April 10th, when the pain along the hip to the leg of the right side increased considerably, the muscles of which were occasionally affected with spasm; pulse feeble; no general heat of surface or tumefaction of the leg.—Ordered a mixture with the ammoniated tincture of guaiacum, one drachm; tincture of colchicum, twenty drops, in peppermint water; to be taken every four hours.

15. Has pain and loss of power over both ankles; the joints not tumefied or tender. Blisters are ordered to be applied to both ankles; hip easier.—Medicines to be continued.

18. Same state.—Blisters to be repeated.

23. Pain in the ankles is relieved, but they are swelled, and slight external inflammation produced, probably from the blisters; slight febrile excitement.—Ordered half an ounce of the compound colchicum mixture of this hospital, every four hours.

30. Has no pain in the ankles, but diminished sensation of both legs, with slight spasms; urine spare.

May 1. Has now no pain in any joint, but considerable increased sensibility of the surface of both legs, and frequent painful spasms; urine retained; bowels open; heat of surface; pulse becoming feeble; appetite bad.—To have the urine drawn off by catheter, and to take four grains of sulphate of quinine, three times a day, dissolved by the addition of eight drops of sulphuric acid, in an ounce and a half of peppermint water.

6. Continued in the same state, but with increased spasms and tenderness, and incapability of retaining his urine.—Ten drops of tincture of cantharides to be added to each dose of the mixture; pint of porter daily, and twelve drops of croton oil to be rubbed along the spinal column, and repeated if necessary.

8. Croton oil produced considerable eruptions, but without any benefit; sufferings from spasm and pressure, even the slightest, upon the surface of the legs, very great; pulse more feeble.—To have four ounces of port wine, in addition to the porter; continue the quinine; place him on the water-bed, and repeat the application of the croton oil to the spine.

19. The urine has become very ammoniacal; the paralysis of both legs complete; sensibility great; is perfectly rational; strength much diminished. An issue has been set opposite the promontory of the sacrum, as the croton oil did not afford a continued irritation.

22. Tenderness, spasms, and paralysis unabated; strength diminishing; passes all the urine involuntarily.—To have all the nutritious food he can take; to continue the quinine, wine, and porter, in increased doses.

He continued gradually sinking in great suffering until the 18th of June, when he became insensible, with dilated pupils, and died on the 29th June.

Autopsy 40 hours post-mortem.

Brain and cavities exhibited no appearances worth notice. Within the theca of the spinal marrow there existed a considerable increase of the cerebro-spinal fluid: quantity so increased as to make the membranes, before they were divided, bulge out considerably; opposite the second dorsal vertebra, and without the theca, a small whitish tumour proceeded from the periosteum of the vertebra, but not sufficiently large to exert any influence over the medulla itself; medulla spinalis exhibited no anormal appearance whatever.

Case 2.—Mr. Frederick Farrands, ætat. 19, articled-clerk to a surveyor at Derby, had an attack, on the 19th November, 1835, of acute rheumatic inflammation of the left knee and right ankle, which subsided under the ordinary treatment. I saw him on December 12th, labouring under the following symptoms:—Excessive pain in the loins; incapability of raising the body from the flexed position; muscles of the abdomen rigidly contracted; urine high coloured;

constant sickness; vomiting very distressing to him; pains generally over both legs; obstinate constipation; generally exhausted, with a weak pulse, from excessive vomiting, which had existed three days previously.—Ordered, a blister to the scrobiculus cordis; effervescing mixture, with two drops of hydrocyanic acid in each dose, with stimulating enemata, frequently administered, until the bowels were relieved.

20. Vomiting and constipation completely relieved; general health much improved; appetite very good; considerable pains, worse at night, in both legs; not more in the joints than over the muscles universally, accompanied with cramps and spasms. The spine carefully examined, no irregularity of vertebræ, or tenderness on percussion over any one of them. From this period, for many months, the symptoms continued much the same, but increasing; unrelieved by every treatment, rational or empirical; external irritants, mercurials, vapour and hot baths, guaiacum, veratria, belladonna, sarsaparilla, colchicum, preparations of iron, change of air, were all tried in their turn, but without affording permanent relief. Occasional attacks of bilious vomiting, attended by constipation, took place, which were relieved as previously. Increasing pains and loss of power over both legs and right arm occurred during the next year, and continued until January, 1838, when I found him in the following state:—Confined upon a water-bed, with complete incapability of moving either hand or foot; perfect paralysis, as far as muscular power, but suffering more intensely than it is possible to describe, with excessive tenderness and exaggerated sensibility of the surface over the limbs and whole of the body; the spine become considerably irregular; the right hip spontaneously dislocated upon the dorsum of the ilium; perfect power over the bladder and rectum; body much emaciated, but countenance good; intelligence perfect; appetite very good; bowels requiring medicine for their relief; pulse of the natural standard in him, and the secretions generally healthy; the surface of the body very hot, so that in the coldest weather he is only able to bear a linen sheet to cover him. The slightest attempt at moving him, or even to touch the legs, particularly, gives rise to the most dreadful expressions of pain; sleep not procurable, excepting from the administration of the muriate of morphine, which he is obliged to take in increasing doses, in order to alleviate his excessive suffering; he is quite unable to feed himself; the joints are perfectly rigid and immoveable, and the rotations of the head, even, upon the vertebra, impossible, so that he is utterly helpless and fixed as an inanimate object. During the following month the suffering was principally confined to the muscles of the neck, which were affected with imperfect attempts at spasm, and with neuralgic pains; the appetite continued good; the pulse more feeble; the urine become ammoniacal, requires the catheter; ulceration of the cornea of the right eye took place, and the humours expelled, the eyelid fell, and became tumid; numerous small abscesses over the scalp; the surface of the body continued hot and exquisitely sensitive, attended with great thirst; bed-sores over the loins, hip, and shoulders. Five weeks before his death the head of the humerus of the right side was drawn under the pectoral muscle. This young man continued in the same state until diarrhœa came on, which continued a week, and released him, on the 9th of June, from a more distressing state of suffering than I had ever before had the misfortune to witness.

Most unfortunately no post-mortem examination was permitted.

Case 3.—Elizabeth Marshall, ætat. 28, servant in a private family, was admitted into the General Hospital July 25th, 1838, suffering under acute rheumatism, of six days duration, affecting the right ankle, knee, and both wrists; first attack. No cough, difficulty of respiration, or uneasiness in precordial region; has been bled from the arm, profusely, twice; not fainted; is now menstruating, but sparingly; the joints mentioned much swollen, and surface reddened.—Ordered, compound colchicum mixture, an ounce and a half, every three hours; hot bath; four grains of calomel, and eight of Dover's powder, every night.

27. Has been freely purged; no vomiting; profuse perspirations; pulse soft, 90; urine high coloured; gums rather sore; pain and swelling less; very thirsty; menstruation ceased.—To take one scruple of carbonate of potash, and the same quantity of carbonate of soda, in an ounce of lemon-juice, every three hours; omit the mixture and night powder.

29. Pains in the arms no better; ankle and knee better; tongue much cleaner; pulse soft but more frequent, 100.—Continue the same medicine.

31. Pain and swelling confined to the left wrist; very painful; no sleep.—To take, at bedtime, four grains of calomel, and five of the soap and opium pill; in the morning, an aperient magnesia powder; to apply twelve leeches to the wrist.

Aug. 3. Seized in the night with acute pain, situated in the right hypochondriac region, with increased fever; bowels rather confined; pains of the joints less.—Ordered, that twenty leeches be applied to the situation of pain; three grains of calomel to be given directly, and half an ounce of castor oil in four hours after; to repeat the calomel and opium pill at night.

5. Pain of side gone; much better in all

respects; bowels sluggish.—To have a magnesia aperient every morning; other medicines omitted.

10. Improving until yesterday, when the rheumatic pains returned in the left knee, extending to the hip; bad night; no heat of surface; pulse good; bowels open.—To have a hot hip-bath, and a blister over the sciatic nerve; to take, at night, acetate of morphine, a quarter of a grain, with three grains of calomel.

13. Pain in the hip greater, less in the knee; left wrist very painful, and slightly swollen; pulse frequent; skin hot.—Is ordered to take eight grains of powdered colchicum-root every three hours, until a decided effect is produced, and to increase the dose if required.

16. Has been sick, and much purged by the powdered colchicum, without any relief of pain; tongue is furred, and fissured by transverse cracks.—To take effervescing draughts, containing two drops of hydrocyanic acid, to relieve the sickness; omit the colchicum.

19. Pain in the hip no better; arm easier; tongue improving, as is the general health; pulse soft and not frequent; appetite good. She continued in this state, without relief of pain in the same hip, and opposite arm, until September 2nd, when the pain continued, with much perspiration, clean tongue, the general health not materially suffering.—Ordered two drachms of the subcarbonate of iron, three times a day, with an aperient pill every night.

7. Pains gone, excepting in the course of left sciatic nerve; bowels regular; general health much improved; the nights are restless.—Continue the iron, and give, combined with the aperient pill, half a grain of acetate of morphine every night, at bedtime.

11. Pain extends from the hips over both legs; is attended with spasm, and appears as if assuming an intermittent character, being much worse in the afternoon, and continuing until the next morning, when it is mitigated; bowels are open; appetite diminishing; pulse weaker.—Ordered to omit the iron powder, and take three grains of sulphate of quinine every other hour, during the remission of pain; the dose of morphine increased to one grain every night.

13. Pains in both legs and left hip are now constant, and attended with frequent spasms; pulse more feeble; is emaciating; bowels confined; small sore formed on the back.—Continue the quinine; to have port wine and sago, beef-tea, &c.; increase the strength of aperient.

16. Pains not relieved; more spasms; bowels very obstinate; appetite less.—To have a soap liniment, impregnated with opium and extract of belladonna, applied to both legs; add half a drop of croton oil to each aperient pill; continue the quinine.—Continued in the same state until the 21st, when the tenderness over the surface of the legs has become excessive, and extends to the abdomen and arms; the legs incapable of the slightest movement; they are particularly flexed; the slightest attempt at extension by me produces the most intense suffering; countenance anxious; pulse 115, and small; tongue clean; eats her food, but without appetite; passes water without difficulty, but more frequently than usual.

23. The pains and tenderness are continued; apprehends even the slightest disarrangement of the bed-clothes, as increasing her suffering; the legs and thighs more flexed; countenance anxious, expressive of great pain; pulse more feeble; appetite worse; urine passed with difficulty; power of retention good; bowels obstinate.—Increase the dose of croton oil in the pills; apply on each side the upper lumbar vertebræ two small blisters, each to be dressed with one-sixteenth of a grain of strychnine.

25. Strychnine has produced violent spasms of the muscles of the neck, increasing the suffering, and impeding deglutition; no spasms of the legs; the arms are now perfectly useless, and as painful as the legs and thighs.—Omit the strychnine.

26. Constant spasmodic motion of the lower jaw; pulse more feeble; excessive tenderness, and pain generally; bowels open; urine passed with difficulty; appetite very bad.—To take a dose of camphor mixture, and the ammoniated tincture of valerian, every three hours, with more wine, and as much nourishment as possible.

28. Spasms of the lower jaw gone; the same in other respects.

30. No spasms; complete paralysis of upper and lower extremities, but undiminished pain; incontinence of urine; intelligence perfect; most anxious countenance; prays that she may speedily be released from her sufferings.

Oct. 2. Same state, but weaker; sores on the back and left buttock; extreme difficulty, even on the water-bed, of dressing them, from the slightest movements being productive of so much suffering.—To take, three times a day, a quarter of a grain of extract of aconite in eight grains of compound galbanum pill.

5. Pain slightly relieved.

7. Pain diminishing; sleeps better; the bowels open; sores better; pulse very feeble.—Increase the dose of extract of aconite to three-fourths of a grain, three times a day.

10. Pains much increased; very little sleep.—The dose of aconite has been daily increased to three grains, three times a day.

11. Same state; no better.

14. The urine has become strongly ammoniacal, incontinence of urine continues; pulse more feeble, very frequent; tongue brown; complains of pain in the throat, nothing observable; appetite very bad;

bowels open.—The dose of aconite is increased to six grains, four times a day.

16. Is much weaker; pains no better, although the paralysis is perfect; the sensibility continues equally exaggerated.—To take an ounce and a half of decoction of bark, and ten grains of carbonate of ammonia, every four hours, with each dose of aconite.

19. The same state; general pains not quite so aggravated.

21. Pain more confined to the left hip, both thighs, and back; pulse very feeble; appetite bad; bowels confined.—To take two drachms of castor oil directly; to continue the other medicines, and to have what wine and nourishment she can take.

26. Deglutition has become very difficult; can swallow nothing in a solid form; is more feeble; tongue very dry and red; has had diarrhœa the last two days, for which she has been taking the compound chalk mixture, and has omitted the former medicines.

28. Less purged; tongue very dry and fissured, not brown; deglutition more difficult; pulse very feeble and frequent.

30. The pains are become general over the body; countenance excessively anxious; pulse more feeble; can swallow nothing; is sinking fast.—Died during the night.

Autopsy 36 hours after Death.

Body excessively emaciated; sores over the sacrum and left hip.

Cavities generally healthy in appearance, but pale and exsanguine.

On opening the arches of the vertebræ the theca was so much distended with fluid as to be unavoidably wounded, when a very considerable quantity of a serous fluid escaped; not able to collect it, in order to ascertain the precise quantity. The tunic closely investing the medulla injected and morbidly vascular in many parts; the medulla itself firm, and natural in appearance. The neurilema of the left sciatic nerve very much reddened and discoloured; the artery running in its substance unusually large; the nerve itself appeared more vascular than ordinary.

The anxious observation and consideration of these cases lead me to infer that the theca vertebralis is not unusually the seat of active rheumatic inflammation; that this inflammation extends itself thence to the arachnoid tunic, both close and reflected; and that the ordinary result of this inflammation is effusion, producing permanent pressure upon the medulla spinalis, and consequent paralysis. That this result is not produced by effusion, the consequence of exhaustion, is evident by its coming on before any signs of debility are induced, and, indeed, during the existence of active excitement in the system. The want of more prominent post-mortem evidences of the existence of inflammatory action is no proof that such inflammation did not exist during life; as we are well aware that in the serous membranes generally the post-mortem morbid appearances present to us the results of inflammation only as proofs of its existence during life,—such as adhesions, effusions of lymph or serum, as the above-related cases afforded; and that inflammatory injection of vessels, and discolouration cease with life. This is very strikingly evident in erysipelas of the skin, the redness from which so rapidly vanishes after death; and I have been repeatedly astonished at the utter disappearance of many years standing cases of acne rosacea, the apparently fixed redness of which so immediately disappears after the departure of life.

I have purposely abbreviated the reports of the second case, not possessing the autopsy; but the course the complaint took, in conjunction with the symptoms attending it, give every reason to suppose that its pathology must have resembled the other two.

Nottingham, 16th May, 1839.

ON THE FUNCTION AND DISEASES OF THE LIVER.

By HENRY ANCELL, *Surgeon to the Western General Dispensary.*

IN the last volume of THE LANCET, page 719, I laid before the profession a theory of digestion somewhat more comprehensive than that which is met with in treatises, and a view of the function of the liver differing from that which is generally entertained. The object of the present paper is to elucidate the latter subject more fully, and to direct attention to some of its more practical applications.

The ancients attributed to the liver a much higher office than has been assigned to it by the moderns, and functions totally different from that which I have described in the paper referred to. Galen and his successors, for many centuries, being totally ignorant of the circulation of the blood, and of the existence of the thoracic duct, and having but a very imperfect knowledge of the absorbent vessels, without the slightest conception of their use, regarded the liver as the great organ of sanguification. After the thoracic duct had been described by Eustachius, in 1563, and Asellius had discovered the lacteals, with the office of the lacteal system of vessels, in 1622; after Harvey had discovered the circulation of the blood in 1628; Pecquet the termination of the lacteals in the thoracic duct, in 1651; and Bertholin, in 1652, had first published the discovery of the lymphatics,—the liver

was no longer regarded as an organ of sanguification.

From that period until the middle of the last century the opinions of Boerhaave and of Haller prevailed in the schools; it was believed that the veins of the intestines not only assist in absorption, so far as aqueous fluids are concerned, but that oily, supuraceous, alkalescent, and putrescent particles, are taken up by them, from the stomach, the cavity of the abdomen, and the fæces themselves; and that a portion of the bile is re-absorbed from the intestines. The separation of these substances from the portal venous blood, in the form of bile, was now considered to be the office of the liver, and an influence in retarding the course of the portal circulation was at the same time attributed to it. About the year 1762 Dr. William Hunter published John Hunter's experiments on absorption by the veins, and these physiologists, with Monro secundus, and Hewson, succeeded in establishing the erroneous doctrine maintained by Hoffman, in 1719, that absorption in the living body is exclusively performed by the lacteals and lymphatics. From that time to the present the most various opinions have been entertained respecting the liver; to depurate the mass of blood by separating oil, hydrogen, carbon; to give the blood a fatty quality; to aid or to supersede the function of the lungs; to regulate animal temperature; to secrete bile for the purposes of chylification and defecation;—have been successively and simultaneously attributed to this organ by the followers of Hoffman and the Hunters. Lastly, Magendie, Tiedemann, and Gmelin, since the year 1821, have revived the doctrine of Boerhaave and Haller respecting absorption, and have established incontrovertibly, by new and more accurate experiments, the important fact that it is performed, particularly in the alimentary canal, in part by the veins. The latter physiologist proved that colouring, odoriferous, and saline substances, are uniformly absorbed by the radicles of the portal veins, and are detected in the lacteals occasionally only, as an exception to the general rule. Magendie not only proved the fact of the absorption of aqueous fluids from the alimentary canal, but he showed also, by experiment, that the properties of many substances are altered in their passage through the liver. For example, a portion of bile or atmospheric air introduced into the crural vein of an animal produced immediate death; introduced into the vena portæ the animal suffered no inconvenience. Reasoning upon the above facts, and upon various phenomena of health and disease, referred to in these papers, I have been prompted to suggest that the true function of the liver is to prevent the passage of soluble substances absorbed by the radicles of the vena portæ, into the general circulation, when they might prove obnoxious to life; and to effect preparatory changes upon nutritive principles before they are conveyed to the lungs for conversion into arterial blood: a doctrine analogous to, but not identical with, that of the Boerhaaveian school.

In the anatomy and physiology of the lower animals there are many striking facts now known which are favourable to my theory of digestion, and the function of the liver. For these I am indebted to Dr. Grant's lectures on comparative anatomy published in THE LANCET.* It is in the higher animals only that a distinct system of vessels exists which receives and elaborates the products of digestion in the primæ viæ, and transmits them separately from the blood into the venous system; this chyliferous system presents grades of development in the different classes, and becomes more simple as we descend in the scale of animal life; in most of the invertebrated classes the whole of the nutritive material is absorbed by the veins of the alimentary canal, and conveyed with the venous blood of the system to the organs of respiration; it remained, therefore, for those who adopted the Hunterian doctrine to show at what link in the animal series the mesenteric veins ceased to perform the function of absorbing nutriment. This they have never done. The facts before us appear to intimate that this function of the veins is in no instance superseded by that of the lacteals; but, on the contrary, that the latter, in the higher animals, is superadded to the former; this provision being in accordance with the greater complexity of their food, of the fluid and solid constituents of their organs, and of the functions of life. The uniform existence of a liver, as demonstrated in almost all animals, from the complicated and enormous gland in the human species, to the simple follicle or cœcum in the lowest grade; the existence of a liver, both before and after any trace of a distinct chyliferous system is visible, and also after this system has attained its most perfect development; its uniform progression in structure from a simple cœcum to a conglomerate gland, and its immediate and intimate connection, in almost every instance, with the alimentary canal, are circumstances which show clearly that its office must be important, uniform, and constant, and, moreover, intimately connected with that of the alimentary canal itself. Witness, in some animals, the long and convoluted intestine traversing the mass of a large liver; the intestines enveloped in the hepatic lobes in others, and the portion so included containing food when the rest of the canal is empty; with many analogous facts described by the cultivators of comparative anatomy.

* LANCET, 1833-34, Vol. II.

The circumstance of the blood conveyed by the caudal vessel and the femoral veins, combining in the venæ portæ of birds, and some of the lower animals, with that which returns from the abdominal viscera to be distributed through the liver, is no argument against the doctrine, that in animals furnished both with a liver and a chyliferous system, part of the material for the formation of blood is received through each of these channels; but the fact that some molluscous animals are destitute of a venous portal circulation, the liver being supplied only by branches of the aorta; and the analogous fact that in two well-authenticated instances the same circumstance has been observed in the human body, are not without their weight as objections. It must be remembered, however, with respect to the former, that the liver is still intimately connected with the alimentary canal, and that we have yet but a very imperfect knowledge of the distribution of the blood-vessels in the lower animals; and, with respect to the latter, that *lusus naturæ* cannot disprove the many positive facts which have been brought forward in corroboration of my opinion. Moreover, the latter objection militates equally against the opinion that the bile is furnished by the portal blood; and yet this opinion has been almost universally adopted. If objections of this kind were admissible, we might argue that the depuration of the blood by the secretion of urine, is not the proper function of the kidney, because a case has been recorded of complete absence of both kidneys in the adult.

Another circumstance which appears, at first sight, to be opposed to the theory contended for, is the continued secretion of bile in certain animals during hybernation, when no food is taken into the stomach; and the somewhat analogous fact of the secretion of bile in the fœtus. But they lose all the force of objections when we consider that in both cases a process of digestion must be going on in the alimentary canal, although it should be limited to the secretions poured out upon the mucous surfaces during life. As to the meconium, it is now well known that its chief source is not in the liver.

With respect to all these objections, it must be borne in mind that the blood traversing the liver in mammiferous animals is blood compounded with, and modified by, new materials, absorbed from the alimentary canal; but it does not follow, because these new materials, upon which the liver is specially destined to act, in consequence of some *lusus naturæ*, or pathological condition, are otherwise diverted; or because no incongruous particles may happen to be absorbed from the primæ viæ, that, therefore, the liver performs no function at all. The function of the organ is the reciprocal action exerted between it and the whole column of fluid traversing its capillary vessels, although its special object be that which I have described; and we are now too well acquainted with innumerable instances of a wonderful adaptation of the animal system to anomalous circumstances, in the structure and distribution of its parts, to admit these circumstances as valid objections to a theory which explains satisfactorily so great a variety of phenomena.

The most accurate physiologists are now of opinion that absorption throughout the animal system is performed by a double set of vessels,—the lymphatics and the veins. There is in the lymph a uniformity of composition, and a degree of animalisation, corresponding to that of the chyle, from which circumstances we learn that the lymphatics, wherever they may take their origin, in the ordinary healthy performance of their functions, like the lacteals, are destined to convey to the lungs only one uniform animalised fluid. The veins, therefore, must be the channels of transmission from every minute point of the body of all those effete particles which are thrown off by the tissues, and which do not enter into the composition of the lymph.

In this instance, again, the most simple process of reasoning might have enabled us to anticipate the results of the experiments of modern physiologists. Thus: the different tissues of the human body vary greatly in composition; the deposition of new matter, and the absorption of old, is continually going on in all those various tissues; the lymph from every part is uniform in composition, or so nearly uniform, that we cannot conceive the materials of these different structures converted into it without leaving complementures or refuse particles; accordingly, there must be some provision for carrying off these superabundant particles, and in deep-seated structures we know of no outlet but the veins. The clear inference is, not only that the veins perform the office of absorption, but that they absorb all those materials of the tissues which do not enter into the composition of the lymph; the process of absorption, therefore, consists in this: the material of any particular structure having served the purposes of life, is separated; a portion of it, in the form of lymph, is conveyed away by the lymphatics, the other portion is conveyed by the veins. Here we see a counterpart of what takes place in the alimentary canal, with one important difference;—the materials absorbed by the veins from the various tissues of the whole body go directly to the heart, without traversing any such organ as a liver; the materials absorbed from the alimentary canal pass through the liver in their way to the heart. The reason for this is obvious; the former contain no new or unassimilated particles,—the latter contain new particles,—fluids, holding in solution various substances which are received into the portal system by a phy-

sical property of imbibition, or so slightly changed by the most simple vital process as to require the immediate action of such an organ as the liver. Thus it will be seen that the explanation given of the function of the liver in these papers is confirmed by reference to the phenomena of the general absorbent system, as at present understood by physiologists.

CAUSES OF HEPATIC DISEASES.

We come now to the more practical applications of the principle in question; and, in the first place, its application in explaining the modus operandi of the causes of diseases of the liver.

All those causes of the diseases of the viscera which produce their action upon the system generally, are enumerated among the causes of liver affections; but there are, also, certain local exciting causes, frequent in their application, and of undoubted efficacy, the modus operandi of which has never been satisfactorily explained. The explanation is assisted in a very important degree by regarding the liver as an organ of digestion, destined to perform the earliest changes upon substances absorbed from the alimentary canal. The abuse of spirituous liquors; the action of impure water; errors in the quantity and quality of the diet; repletion after long fasting; and the action of mercury, are, perhaps, the best ascertained of these local exciting causes. The knowledge of the effects of impure water in exciting diseases of the liver, may be referred back to Hippocrates. Endemic diseases occurring among troops, during sieges, and in particular localities, involving primary and symptomatic hepatic affections, have been more frequently traced to impure water, as a cause, than to any other source. Cleghorn, in his observations on Minorca, when enumerating the causes of obstructions, indurations, and swellings of the glandular viscera in the lower belly, together with wind in the first passages, and bad digestion, includes crude vegetables, the abuse of spirituous liquors, and high-seasoned diet, but most especially a scarcity of good water; and he records the fact that tumefied livers and spleens are most common, not only in man, but in brutes, in that part of the island where the waters are uncommonly brackish. Girdlestone considers the drinking of large quantities of the bad waters of the Carnatic as a cause of the hepatitis in India. Other writers, also, have insisted much on the injurious effects of common impure water. I have seen several instances in my own practice, both of individuals and of whole families, suffering from dyspeptic and hepatic affections, the cause of which I was enabled to trace clearly to the drinking habitually of impure water.

With respect to the nature of the ingesta, as a cause of liver diseases, there is a curious remark of Elisier, worth repeating. He frequently found chalky concretions, of a friable texture, in the pori biliarii of oxen fed upon hay and straw, without exercise, during winter. It is related, also, that we may at will produce tubercles in the livers of rabbits, by feeding them with insalubrious food. No inflammation is so easily induced by alcoholic fluids taken into the alimentary canal as that of the liver; and I need only appeal to the experience of every individual in the profession accustomed to post-mortem inspections, to establish the frequency of organic diseases of the liver in those individuals accustomed to the use of spirituous potations. Writers on the diseases of the West Indies have attributed many of them to the drinking of rum. Musgrave attributes the hepatic ileus, or dry bellyach, with a high degree of probability, almost entirely to the use of this fluid, which he regards as a "specific poison" to the liver. Many practical writers have referred the frequency of hepatitis in both Indies to the habitual use of condiments, and high-seasoned dishes, as well as to that of spirituous fluids.

All these circumstances, with many others which might be quoted, establish the fact that diseases of the liver are very frequently produced by substances received into the alimentary canal; more especially by the fluid ingesta; and this accounts satisfactorily for the insidious character of many of these diseases. In order to explain the operation of these causes, modern pathologists have had recourse to the term *sympathy*; the true explanation is this:—Fluids and other substances are received into the portal blood from the alimentary canal; the portal blood, modified in quantity and quality, is conveyed to the liver, where it produces a direct local effect, exalting, depressing, or perverting the functional operation of the organ, and ultimately superinducing organic disease.

If these causes of hepatic diseases always produced their effects by deteriorating the whole mass of the blood, and, like the kidneys, the liver was acted on only as an organ of depuration of the blood, whether venous or arterial, the question would remain to be solved,—Why do the exciting causes above enumerated produce their effects so unequivocally upon the liver, rather than upon any other organ in the body?

The reciprocal coincidences between affections of the head, and affections of the liver, have been explained also upon the principle of sympathy. In connection with this subject it is worth while to consider how scantily is the liver supplied with nerves, and how much less directly is it connected with the brain than almost any other organ. In proof of a remarkable deficiency in the sensibility of the liver, it is reported to have been handled and touched with surgi-

cal instruments, by La Motte, without producing pain. Abscesses are, also, occasionally found in it upon dissection, where no pain whatever has been complained of. Many of its diseases, particularly those which have their seat in its parenchyma, and which leave its investing membrane intact, are either almost or entirely devoid of pain. But the influence exerted between the brain and the liver reciprocally, may be understood by reference to the special function of the latter. The direct influence of the brain upon the circulation of the blood, and upon the alimentary canal, is sufficient to explain all the *hepatic* phenomena which attend its diseases. The direct influence of the liver upon the circulation of the blood, and upon the alimentary canal, is sufficient to explain all the *cerebral* phenomena which attend its diseases. Passions of the mind, and affections of the head, besides acting, through the nervous system, upon all the secretions, act more especially upon the stomach and bowels; hence, loss of appetite from anxiety of mind, vomiting from hydrocephalus, and the like; the process of absorption from the alimentary canal must also be interfered with by these causes; the portal stream of blood must be hurried or retarded in its circulation, or altered in its component parts, and congestion, irritation, and inflammation of the liver, or jaundice, are the result.

SYMPTOMS OF HEPATIC DISEASE.

A few words, in the next place, upon the *symptoms* of liver diseases. Every important change in the functions of the liver is preceded or attended by gastric symptoms. The symptoms of congestion of the liver are nausea, impaired appetite, and bad digestion; the slightest congestion will produce vomiting. All the acute affections produce vomiting, and all the chronic diseases are attended by severe dyspeptic symptoms. These facts have also been explained by pathologists upon the principle of sympathy; but, together with this, Dr. Abercrombie refers to the actual pressure of the liver upon the stomach, and to morbid changes in the biliary secretion. Mechanical pressure can only act injuriously when the viscus is enlarged or indurated, and the operation of such a cause must be too partial and too inconstant to explain effects so general and so constant. I account for these sympathetic affections of the stomach by the interruption of the circulation in the organ, whereby the vascular tunics of the alimentary canal become congested, absorption is interfered with, digestion is put a stop to, irritation is excited, and vomiting is induced as an effort of nature. In many instances this chain of causation results in extravasation or exudation of blood from the internal surface of the stomach or bowels, producing dark, grumous, and black vomiting, hæmatemesis, and hæmorrhoids, as symptoms of diseases of the liver.

In the symptoms of hepatic diseases there is one curious fact which must not pass unnoticed. The ancient authors describe a remarkable putridity in the pus deposited in hepatic abscesses. According to Van Swieten, Ætius observes that it is customary for such humours to flow from ulcers of the liver as altogether resemble those that drain from corrupting bodies; and Van Swieten himself remarks, that when an abscess is seated in the concave part of the liver the fluid is putrid. Abercrombie also quotes the fœtid condition of the pus in abscesses of the liver. I believe the descriptions of the older writers in this particular are exaggerated; but I find on consulting cases recorded by the moderns, that this putridity of the contents of abscesses is much more frequently mentioned in connection with the liver than any other organ. From this circumstance it has been inferred that the fluid of the portal veins is more prone to putrefaction than that of either veins or arteries in any other part of the body, a rational explanation of which is found in the fact that portal blood, and that only, contains unanimalised materials.

TREATMENT OF DISEASES OF THE LIVER.

The last and most important practical application of the principle adopted in these papers, refers to the *treatment* of diseases of the liver.

In the acute diseases of the liver, whatever may be its function, the treatment is founded upon the same general principles as that of any other parenchymatous organ. It is in its chronic diseases and in its functional disturbances,—in those conditions of the system which are attended with morbid action of the liver, as in gout, and in various remote diseases complicated with hepatic symptoms, that the physiology of the organ becomes a matter of practical importance. It is no more my intention to enter generally into the subject of the treatment, than of the causes and symptoms of hepatic disorders; my object is only to illustrate the application of a principle.

In the practice of the older physicians abstinence, and afterwards a spare diet, was enjoined as a most essential part of the treatment of diseases of the liver, "that the organ might be empty for the medicine to enter into it;" clysters were also recommended, "because when long retained they are absorbed by the meseraiac veins, and carried directly to the liver, with their medicinal virtues little or nothing altered." The treatment of Hippocrates, Galen, and Aretæus, and the principle upon which it is explained by Boerhaave and his commentator, are sanctioned by modern discoveries in physiology and pathology. Both theory and experience dictate to the physician re-

strictive regulations of diet, as the first and most important prescription in the treatment of chronic affections of the liver; but a knowledge of its special function, as inferred from the facts contained in these papers, leads to a practical consideration of paramount importance in this respect; I mean strict attention to the quantity and quality of the fluid ingesta, and more particularly to the purity and composition of common water, whether imbibed as water, tea, coffee, malt liquor, or in any other form. I mention this fluid rather than others, because although individuals in the profession, from time to time, have given it due consideration, I believe that it is in general totally passed over as a means of introducing noxious principles into the constitution, and of inducing obstructions, congestions, concretions, chronic inflammations, hypertrophy, atrophy, granulation, induration, and the like pathological lesions of the liver, or the more transient hepatic, biliary, and alimentary attacks to which our patients are so incessantly liable. The purity and composition of the water habitually employed by hepatic valetudinarians should invariably be inquired into by their professional attendants.

Mercury has been enumerated amongst the causes of hepatic diseases, and it is also universally employed as a remedy for them. The effects of this mineral differ according to the quantity given and the mode of its exhibition. In most of its preparations it produces a local irritation in the part to which it is applied, and when this is severe and sudden, like most irritating substances, it excites vomiting and purging, which are efforts of nature to effect its own rejection. In almost every instance more or less of the mineral is absorbed, and the experiments of Tiedemann and Gmelin prove that this absorption is effected by the roots of the vena portæ. Mercury is, therefore, conveyed at once to the liver, and excites the special function of that organ. This being amongst the primary local effects explains the following observations which I have frequently had occasion to make. I have seen the fæces deficient in healthy bile for several days together, notwithstanding the use of laxatives and purgatives; I have then administered five grains of blue pill at bedtime, which has been followed by one or two evacuations of a guinea-yellow colour, on the following morning. I have as frequently observed a dose of calomel failing to excite the special function of the liver so long as its more powerful evacuant operation continued, but as soon as this ceased, and the resistance to its absorption subsided, it has produced one or two bilious evacuations. Calomel sometimes fails to excite bilious evacuations in infants and children when the less irritating preparation, mercury and chalk, will succeed, the insoluble bin-oxide in the latter preparation being converted into a mild soluble acetate. We are led by these considerations, in the treatment of liver diseases, to inquire what is the best preparation, the best mode of administration, and the proper quantity of mercury to ensure its absorption and its specific effect upon the organ? The subject is too extensive to be treated in full on the present occasion, but I can testify to the advantages which are frequently derived in chronic cases from Dr. Wilson Philip's plan of minute doses of blue pill. I believe they depend upon the gentle stimulus which is conveyed directly to the liver, without affecting the system and involving all the organs in the consequences of the absorption of a large quantity of this powerful mineral, in contradistinction to the violent and continued excitement which the organ in question must undergo, in common with other glands, when the system has become saturated.

The prophylactic and curative effects of mineral springs are satisfactorily explained by the view which has been taken in these papers of the function of the liver. The more stimulant Bath waters, taken fasting, when absorption is active, and conveyed immediately to the liver by the vena portæ, the circulation being at the same time promoted by exercise, must have the effect of removing accumulations of viscid bile, promoting the secretion of healthy bile, and preventing the concretion of biliary particles. I have had proofs of the success of the practice adopted by an extensive practitioner at Leamington, in its effects upon some of my own patients. The valetudinarian is made to drink half a pint of the mineral water the first thing in the morning, to walk half an hour, then to drink a second half-pint of the water, and to walk a second half hour, before breakfast; small doses of blue pill are also administered, and rules for the most simple plan of diet laid down. The manner in which this treatment excites the healthy function of the liver, upon which its efficacy in great part depends, will be obvious to those who have perused this paper. Finally, by bearing in mind what I believe to be the true function of the liver in the treatment of its diseases, I am firmly pursuaded that we shall not so frequently find it necessary to send our patients to Bath, or to Leamington, or to Schwalbach, in order to obtain a cure; more especially if the treatment which naturally arises out of the principle be adopted and rigidly insisted upon, while a cure is yet practicable.

THE LANCET.

London, Saturday, June 1, 1839.

THE defects of the Registration Acts are very obvious, and they may be easily remedied. We advert to them now, in the hope that steps may be taken to render the measure perfect in the present session of Parliament. It is quite evident that the registration, to possess its full value, should be universal; *every* birth, *every* death, and *every* marriage in the kingdom, should be registered. For if the registration be as valuable in legal respects, as it is declared to be by the lawyers and judges, why should any Englishman be deprived of its advantages? The omission of a certain number of births or deaths necessarily interrupts the chain of evidence by which descent and relationship are traced; and if the poor be allowed to neglect the interests of their children and relatives, we shall never be able to boast, with the Belgian Minister, Count FELIX DE MERODE, that the humblest individual may find in the public records of the country a genealogy as complete as is now possessed by the most illustrious families. The omission of an uncertain number of births and deaths was one of the greatest defects in the Ecclesiastical Registration; it deprives the returns of their principal value in connection with medical police, the doctrines of population, the laws of mortality, and every department of vital statistics. The labour of preparing abstracts of the registers is precisely the same when the registers are perfect as when they are incomplete; the difficulty of deducing from them any scientific results is infinitely increased by omissions. The expense of the General Register Office, and the greater part of the machinery, is as great when the registers are imperfect, as when they are complete.

What are the provisions of the Acts, then, to ensure a universal registration? In the first place, it is made the interest of the Registrar to record every birth and death, as he is paid for each entry; the greater the number of entries, the higher is his salary. The registry is gratuitous; the informants have to pay nothing. The parties best acquainted with the facts are bound to give information; but there follows this fatal qualification—*upon being requested so to do by the Registrar*. Now, it may happen that the Registrar never hears of the birth or death; and no one is then bound by the law to see that the birth is registered. In the case of death the registration is enforced; the burial cannot be effected without a certificate from the Registrar, or, if it be effected, the clergyman is bound to give notice of the burial to the Registrar. The register of deaths will, therefore, be nearly complete; the register of births necessarily incomplete. If the parties now bound to give information *upon being requested so to do*, were bound to give information of births within three days, and of deaths within twenty-four hours, whether they were requested to do so or not, under pain of a penalty, or of indictment for a misdemeanour, the English Registers would be more accurate than those of any other country. All parties—the Registrar and the informants—would be alike interested in obeying the law, and in discharging their duty.

The registration of births was enforced in the 17th century in England. The Act 7 and 8 WILL. III., c. 35 (1695), provided that the parents of every child should, within *five days* after birth, give notice to the clergyman of the day of the birth of such child *under a penalty of* 40*s*.

The registration was made compulsory in France by the "Code Napoleon." An extract from Dr. BOWRING'S evidence will exhibit the mode of its operation, and the light in which the compulsory clause is viewed by the French:—

773. * * Any register of the *religious ceremony* has no civil effect; it cannot be *received in a court of justice*. As respects deaths, no interment can take place without the authority of the civil functionary, who

is required to see the body, *it being ordered that notice should be given, within twenty-four hours after the death of the party, to the authorities*, who then record the fact, and the period of death also, in duplicate."

"775. What is the penalty for not presenting the child?—Imprisonment for a period not less than six days, nor more than six months, and a fine not less than sixteen, nor more than 300 francs. I found scarcely any instances of defalcation. Obedience to the law has become so much a habit among the people that it almost invariably takes place; ten or twelve times I put the question to the mayors of large towns, and they said *that cases were rare in which there was not anxiety on the part of the parents to have the child registered.*"

The same compulsory system was extended to Belgium, and is described by M. QUETELET as being highly satisfactory to the people:—

"969. Was the effect of the introduction of the Code Napoleon into Belgium, as to the registration of births and marriages and deaths, exceedingly beneficial?—Yes, it has been of great service; since the last revolution *an attempt was again made to put a certain portion of the registries into the hands of the clergy, but the attempt led to such animadversion and discontent that they have found it necessary to return to the former practice*; it became the subject of legislative discussion, and the civil registration has been universally adopted.

"970. Was that on the restoration of the House of Orange, or subsequent to that?—It was on the revolution of 1830 that they again attempted to use the clergy, *and abandoned it on the representations of the people.*"

"973. But as the Code Napoleon requires as to birth the production of the child, and as to death prohibits interment till after notice and examination, did the population of Belgium feel these peculiar and new restrictions burthensome and inconvenient?—*Not in the slightest degree, when the system was re-established; for though, at the first, there were objections to its introduction, I have never heard of an objection to its operation.*

"974. Notwithstanding the clergy of Belgium had a considerable influence over the mass of the population?—Yes."

The last answer is important; and shows how feeble a priesthood is in its opposition to a useful institution. The Clergy of the English Church have more power in the Government, and less hold on the hearts and prejudices of the people, than the priests of Belgium, or of any other country; so that it is not likely that they could offer any effectual protracted opposition to universal registration, enforced by law, in England.

Mr. FINLAISON was examined as to the working of the same law in Ostend:—

"499. Did you hear any complaints as to the inconvenience of these laws?—*None whatever; it is the affair of a very few minutes.*

"And the whole is conducted with great respect and facility?—With the utmost.

"The penalty would fall on the parent?—So I understood."

It is unnecessary to adduce further evidence in proof of the fact, that the people of other countries submit to a compulsory registration with alacrity. The reasonableness and usefulness of a universal registration of births, deaths, and marriages, are so evident, that we never saw the system attacked in a foreign journal, and feel certain that it could not be assailed with the slightest effect in England.

By the present Acts the parties are bound to give information upon being requested so to do by the Registrar; nor is it likely that they would deem it a greater task to give the information in the first instance. But it is said that the English are a freer people, and that they would refuse to submit to civil regulations which are enforced without difficulty in France and Belgium. This objection is exceedingly shallow: even if the English be a freer people, they have certainly, with their freedom, as much common sense as the people of the Continent; and, if we be not much mistaken, will understand as readily as any people the important bearing of the civil registration upon their own interests, the interests of their children, and the interests of the community. Four in five of the people, would avail themselves, spontaneously, of the advantages of civil registration;—and the only question is, whether a small, prejudiced, misled minority should be allowed to defeat the objects of the measure, or be compelled to submit to the majority, and to enjoy the advantages of the law. No doubt certain parties would magnify the

severity of the enactment which interfered so outrageously with the ignorant man's freedom as to compel him to ensure his children the advantages of registration—to contribute facts to the science of human life and of human improvement. But the parties who admire the Englishman's love of liberty in rejecting a proffered benefit through ignorance, would not hesitate to commit him to jail, as a felon, if he shot a partridge, or killed a hare; and if, to assert his freedom, and to show his superiority over the police-ridden population of the Continent, he took it into his head to refuse the payment of the taxes, or Church-rates, we know with what tenderness the perverse "freeman" would be treated by the Courts. If Isaac Brown refuse the parson a shilling, as an Easter offering, the next week he is fined five shillings, the next day three guineas, the next day nine guineas, and committed to prison by the Ecclesiastical Courts; yet he must not be compelled to register the birth of his child, although it would be but an affair of a few minutes, and cost him nothing. No; when his child is to be injured Isaac Brown's freedom of action is to be scrupulously respected by the Legislature. Isaac Brown is an Englishman, and *not* a Frenchman!

The Registration Act was made in the north the precursor of the unpopular Poor-Law Amendment Act, and thus encountered an artificial opposition; it was an innovation upon established habits, and was strenuously opposed by the clergy of the Established Church, so that it has been submitted to the test of public opinion under the most unfavourable circumstances imaginable. If it shall, therefore, turn out that more births have been registered than omitted in the first year, it will be quite clear that a majority of the country is in its favour, and the minority must be compelled to submit to the will of the majority. The existence of the Act is now well known; the artificial opposition has subsided, as it originated, in a misconception; hence it will be only necessary, when Mr. Lister's Report is laid before Parliament, and it is seen whether a majority of the births and deaths have been registered, to introduce the necessary amendments, and to render the registration forthwith universal. The compulsory clauses might be rapidly distributed all over the kingdom, and the *reasons* which have led to their enactment might be set forth in a few short paragraphs. In the event of a dozen persons being fined and punished for negligence, what will they avail the enemies of civil registration when the author of the measure can say, with the Registrar General's Report in his hand! "I admit that those penalties have been inflicted upon a few obstinate individuals, but the measure has worked well; it has completely succeeded; every birth, death, and marriage has been registered in the year, and the results are of the greatest interest? The registers secure to the poor, as well as to all other classes, numerous civil rights; they supply the state with invaluable information; and they furnish science with data which will lead to the diminution of sickness, to the security of life, and to the improvement of the general physical condition of the people." An efficient legislative measure, like a work of art, is its own justification; and he ill consults his fame, or the public good, who mutilates one or the other, in the hope of conciliating his enemies.

The Act for the Registration of Births, Deaths, and Marriages, is one of the most useful practical measures which Lord John Russell has brought before Parliament; let us hope that the noble Lord will not leave to others the task, or the glory, of completing a scheme of registration which might easily be made superior to any other in Europe.

We shall next week show the connection of the Act with medical police; and shall advert to a very remarkable collection of medical certificates.

CONTRIBUTIONS TO PATHOLOGY.

By CHARLES F. FAVELL, *M.D.*,
Physician to the Sheffield General Dispensary and Infirmary, &c.

ASCITES.

URIAH MITCHELL, æt. 30, labourer, was admitted into the Infirmary Sep. 21, 1839. He states that he has been ill for a month or five weeks, but was able to continue at his usual employment till within a fortnight of his admission. His work being out of doors he has been much exposed to severe weather, and attributes his present complaints to the combined influence of cold and wet. His habits have been temperate, and he never had jaundice. He says that his disease began with swelling of the abdomen, without pain; the bowels had been confined for a few days before the attack, but are not so habitually. At present there is considerable tumefaction of the abdomen, with dulness on percussion, when he assumes the erect posture, and distinct sense of fluctuation; passes only a small quantity of high-coloured urine; bowels regular; pulse 90; tongue clean; countenance pale and haggard. The following medicines were prescribed for him:—Mercurial pill, three grains, every night; a turpentine enema, this evening; the abdomen to be rubbed with mercurial liniment night and morning.

95. Passed a restless night in consequence of the bowels being frequently moved; motions watery; pulse 86; swelling of the abdomen somewhat diminished; mouth rather sore: complains of cough; chest sounds well on percussion; respiration natural.

Infus. of digitalis, eight ounces;
Tincture of cantharides, two drachms;
Solut. of bichloride of mercury, 1½ drachms.
Two dessert-spoonfuls, thrice a day.

Continue the mercurial pill every second night.

Bitartrate of potass, three drachms;
Gamboge, three grains, every second morning.

27. Moderate ptyalism; bowels moved several times yesterday, three or four times during the night, and three times this morning; motions watery; slight tenesmus; no sickness; tumefaction of abdomen as before; cough relieved; pulse 64; tongue clean.—Continue the mixture and powder; omit the other remedies.

29. Bowels moved three or four times yesterday, and four times this morning; motions not so watery; has not passed more than a pint of urine since last report; no tenderness on pressing the abdomen; tumefaction less; pulse 70.—Omit the digitalis mixture.

Nitrate of potass, half a drachm, every fourth hour;
Dover's powder, eight grains, every night.

Oct. 2. Yesterday he took a powder with supertart. of potass and gamboge, and has since been freely purged; motions natural in colour, not very watery; passes but little urine; pulse 72; abdomen less tense.

Solution of acetate of ammonia, two ounces;
Camphor mixture, six ounces;
Spirit of nitrous æther, eight drachms.
One ounce every four hours.

4. Yesterday the bowels were moved seven or eight times; mercurial fœtor of the breath; slight ulceration of the inside of the lips; tongue clean; pulse 62; passes more urine; abdomen less; hands and feet cold.—Continue the mixture and Dover's powder; a gargle of chloride of lime.

6. Bowels moved five or six times yesterday; passed about a pint of urine during the last 24 hours.—Continue medicines.

8. Tumefaction of abdomen gradually lessening; in other respects as before.

Infus. of digitalis, eight ounces;
Spirit of nitrous æther, three drachms.
Two spoonfuls thrice a day.

13. Abdominal swelling is gradually lessening; bowels moved several times during the day; urine coagulates *very slightly* at nearly a boiling temperature; complains of pain about the region of the right kidney.—Cupping-glasses to the back.

Saline diaphoretic, and camphor mixtures, of each two ounces;
Spirit of nitrous æther, three drachms; an ounce every fourth hour.

I shall now pass on to the report on the 23rd, by observing merely that he was entirely relieved of the pain by the cupping, and that, in consequence of the bowels becoming constipated, he was ordered to take one grain of extract of elaterium every morning.

23. Bowels moved twice after taking the elaterium; motions of a light colour, and in small quantity; has passed more urine; tongue rather dry and red in the centre, and a little furred at the edges; pulse 68; inferior extremities very œdematous; hands and feet cold. He was ordered nitr. of potass, gr. xxv. thrice a day; to take a powder with pot. supert. and gamboge the following morning, and to have a little gin, with sugar and hot water, to drink. He continued in much the same state until the 27th, when we have the following report:—

27. In consequence of the bowels being constipated he took a dose of castor oil yesterday afternoon, which operated freely; motions watery, but more natural in appearance; has passed urine very plentifully; tumefaction of abdomen much the same; feet and legs very œdematous; hands and feet rather cold; tongue clean, but rather dry; pulse 66; makes no complaint.

Infus. of cascarilla, eight ounces;
Carbonate of ammonia, two scruples;
Spirit of nitrous æther, three drachms.
One ounce thrice a day.
A pill with one drop of croton oil.

28. This morning, about 10 o'clock, I received a note from the house-surgeon informing me that Mitchell was seriously worse; I immediately went down to see him and learnt the following particulars:—

I was informed that my patient continued pretty comfortable during the day after my last visit; that his bowels were moved two or three times, and he passed a considerable quantity of urine more than he had voided for a long time previously. He got out of bed twice in the night (without assistance) to pass water, and made no complaint. At four o'clock, A.M., he suddenly became delirious; at five he fell into a state of coma, and died at 2, P.M.; the swelling of the abdomen was considerably diminished.

Post-mortem examination forty-one hours after Death.

On removing the calvarium a large quantity of dark-coloured fluid blood escaped from the posterior part of the longitudinal sinus, which was wounded by the saw. There was nothing particularly worthy of observation in the *dura mater*, except a small circumscribed spot, considerably injected, situated posteriorly and on the right side. *The arachnoid membrane* was opaque throughout, and a considerable quantity of colourless fluid was effused beneath it; the substance of the hemispheres was natural, both in appearance and firmness. *The ventricles* contained rather more than an ounce of clear transparent fluid. The fornix, septum lucidum, and central parts of the brain were soft and pulpy.

Chest.—Lungs healthy, perfectly crepitous, but the right lung contained a quantity of aggregated gritty matter, posteriorly; no effusion into the chest or adhesion of the pleuræ; *the heart* natural in size, but slight gelatinous deposit on the surface of the right ventricle. Slight induration of the *mitral valve* and also of the semilunar valves of the aorta; the ascending portion of the aorta somewhat dilated, the lining membrane thickened, of a yellow colour, and containing ossific deposits.

Abdomen contained about a gallon and a half of clear transparent fluid, of a yellow colour; peritoneum slightly thickened, but not opaque; liver of natural size, but thickly studded with tubercles, some of the tubercular masses being of very considerable size; the gall-bladder contained a small quantity of healthy bile; the mucous membrane of the intestines healthy; *spleen* natural.

The kidneys were of natural size, the tubercular portion rather darker coloured than usual, and of a slightly fibrous texture; the cortical portion normal; there was a small vesicle, containing a perfectly clear and colourless fluid, on the external surface of the left kidney, and which sunk to about the depth of six lines into its substance.

REMARKS.

It is not my intention, in the present communication, to make any observations on the general pathology of dropsy. I shall rather confine myself to a few brief remarks on the peculiarities of the case I have detailed. For the present I forbear saying anything on the treatment of dropsy, even in justification of the plan which was adopted in this case. I shall, most likely, revert to this subject in a subsequent communication.

I would first observe that this case is confirmative of the testimony of the most eminent pathologists, *that very extensive hepatic disease may exist without occasioning any formidable train of symptoms.* The liver is an organ possessed of only little sensibility. This, doubtless, is one reason why extensive structural changes so frequently occur in this viscus without their presence being suspected. In the case of Mitchell the dropsy was manifestly the consequence of the morbid condition of the liver; but we cannot tell how long the liver had been diseased before the effusion took place. I have no doubt that diseased action had been going on for a considerable period. The appearance of several of the tubercular masses was sufficient evidence that they were not of recent formation. It will be observed, however, that the man stated he had not been ill for more than a month or five weeks, and that he had continued at his usual occupation till within a fortnight of his admission; and, further, it will be observed that the swelling of the abdomen was, to him, the first indication of disease. There had been no previous pain in the hepatic region; no sickness; no irregularity of the bowels; no jaundice. In short, there had been nothing to indicate that the liver was the seat of extensive organic mischief. Again, during the time the poor man remained in the hospital there were no symptoms, except the dropsical effusion, which could be attributed to the abnormal condition of the liver. The appetite was good; digestion perfect; tongue clean; evacuations almost invariably natural in colour; there was no yellowness of the skin or conjunctivæ, and no uneasiness in the hypochondrium.

I remark, secondly, that the observation frequently made by medical writers, that the sudden subsidence of the dropsical swelling, in cases which are not of very recent origin, is often the forerunner of death, is remarkably illustrated by the example before us. Mitchell is represented to have voided "a considerable quantity" of

urine after the visit on the 27th, "more than he had passed for a long time previously," and the diminution in the abdominal tumefaction observable on the following morning was very great. It is not my intention, at present, to inquire into the reason of this sudden diminution; my only object, in this communication, is to direct attention to one illustration of a fact oftentimes noticed and previously recorded.

I hasten to add one or two remarks on the cause of my patient's death. It is evident that the immediate cause of death was situated in the head. The poor man died comatose, and the coma was preceded by a very transient attack of delirium. When did the affection of the brain commence, and by what was it occasioned? This question naturally divides itself into two parts. First, When did the affection of the brain commence? In reply, I observe that there was no evidence of cerebral affection till four o'clock, A.M., of the day on which he died. At the visit on the previous morning he made no complaint; the intelligence was perfect, and the whole of the cerebral functions unimpaired. During the day, after the visit, and throughout the night, he continued cheerful and intelligent, quite conscious of, and obedient to, the calls of nature. But at four o'clock on the following morning he became suddenly delirious, and remained in a state of great excitement, so as to disturb all the patients in the ward, for an hour, when he sunk into a state of coma, from which he could not be roused. *I do not hesitate to state my own conviction that the delirium was occasioned by the arachnitis, and that the arachnitis did not exist until a very short time before the occurrence of the mental aberration.* During the whole of the time that the man remained in the hospital there was not a single symptom indicative of disease in the brain or its membranes until the morning of his death.

I come now to the second question, What occasioned the arachnitis? On this subject it would be easy to enter into a variety of speculations, but I shall abstain. I only inquire, Was the effusion beneath the membranes the CAUSE or *the consequence* of the arachnitis? Inflammation of the arachnoid membrane may take place very suddenly, and without being preceded by any very obvious cause; but I am not aware that there is any case on record in which the inflammatory action ran its course so rapidly as to terminate by effusion within an hour of its commencement. I may be told that I am now "begging the question;" that I have no right to assume that there was no meningitis before the delirium occurred; and, further, that there are cases on record in which extensive meningitis gave rise to only very obscure symptoms; for instance, such an example is recorded by Dr. Abercrombie, at p. 50 of his admirable work on Diseases of the Brain, &c. To this objection I only reply that I have certainly as much right to assume the absence of any amount of meningeal inflammation as I have to assume its presence, so long as there is an entire freedom from those symptoms of cerebral irritation which indicate its existence. I am well aware that although such irritation may most frequently be traced directly to the brain, it is nevertheless occasionally situated in very remote organs. But in this particular case we have no evidence of any abnormal irritation whatever, unless we should regard as such the unusual activity of the absorbents. I am inclined to the opinion, then, that *the effused fluid was the cause and not the consequence of the meningitis.* I account for the circumstances in the following manner:—On the Saturday afternoon the absorbents became considerably excited, a large quantity of fluid was, therefore, taken up. The absorbed fluid would be carried into the general circulating mass, and would necessarily produce a degree of hyperæmia. The blood-vessels would be to some extent relieved by the increased action of the kidneys, but still they would remain fuller than natural. The blood would, moreover, be thinner than usual. Now, these two conditions,—the hyperæmatous state of the vessels, and the preternatural fluidity of the blood,—would predispose to effusion, and I suppose that such effusion would occur wherever there was any obstruction to the circulation, or any remarkable want of tone in the vascular system. I consider it probable that there was this want of tonicity in the vessels of the brain,—that they were unequal to circulate any increased quantity of fluid, and that, consequently, the smaller vessels relieved themselves by pouring out a quantity of the more fluid part of the blood. The effusion would operate as an irritant on the membranes with which it was in contact, and thus occasion the meningitis. Under these circumstances the symptoms of meningitis would be of short duration, because the rapidly-increasing amount of effusion would bring on the state of coma. It may, probably, be thought that the softening in the central parts of the brain militates against this view of the subject. In my opinion it does not; but I have already taken up so much space that I cannot enlarge. My object is rather to furnish facts than theories. I have given the facts, and I leave every man to draw his own inferences.

I regret that I fell into a slight error in my recent communication on hydrophobia; I have been requested to state, which I do with much pleasure, that the second post-mortem examination was conducted by Mr. Gillot, and not by Mr. Gregory.

PROLAPSUS UTERI.

To the Editor of THE LANCET.

SIR:—Having read in the last LANCET a report of a discussion held respecting the treatment of prolapsus uteri, at a meeting of the Royal Medico-Chirurgical Society, I request the favour of a little space in your Journal for an account of an operation for the cure of this complaint, which I witnessed during my attendance at the Anglesey Lying-in Hospital, Dublin, during the winter of 1834-5.

Mr. Cæsar Hawkins asked, "Had any member any experience of the operation?" Though I have not the honour of being a member, I hope the following will not be less welcome.

Mrs. ———, a woman of muscular and athletic frame, was admitted into the Anglesey Hospital on the 18th of November, 1834. By her own account she lived in the capacity of servant, and about three years previous to her admission, while engaged in lifting a heavy tub of clothes, she suddenly felt something give way in the "lower part of her belly;" at the same time she also felt as if something slipped down into the vagina. After some time she found the uterus had descended below the os externum, in which situation it remained while she continued in the erect posture, but when she lay in the recumbent state it returned to its natural situation, and remained so till the erect posture was again resumed, when it descended. In this state it continued till about ten months previous to her admission, when it remained constantly outside the os externum.

On examination Mr. Hayden and Dr. Ireland found the uterus to project about four inches, enveloped in the inverted vagina; that portion of the uterus only which, in the natural position of these organs, is surrounded by the vagina, was visible, so that its appearance, thus prolapsed, resembled a penis. A slight ulcer on the mucous lining of the vagina, near its union with the uterus, was poulticed, and occasionally touched with nitrate of silver. Under this treatment it healed in a few days.

As the poor woman's circumstances in life rendered it necessary that something decisive should be determined on, Mr. Hayden, Mr. O'Beirne, and Dr. Ireland concluded that Dr. Marshall Hall's operation for prolapsus uteri should be performed. The woman, being placed on a table, with her shoulders slightly elevated by a pillow, and the hospital nurse and one or two students holding her arms, Dr. Ireland performed the operation, commencing with an incision on the mucous coat of the vagina, at its attachment with the uterus, and continuing it back to the os externum. In this inverted state of the vagina and prolapsed uterus the os tincæ was, of course, the farthest projecting point. Two incisions were thus made, which, at the os externum, suddenly approached each other. During these incisions a slight hæmorrhage occurred about one inch from their commencement, where a small branch of one of the *vaginal arteries* happened to run. There was no pain felt till the incision was brought back to the termination of the mucous covering of the vagina, where it becomes continuous with the skin.

The incisions being completed, an inch and a half of the mucous membrane of the vagina was dissected out, and the edges approximated by *four* interrupted sutures. This being accomplished the uterus was returned to its natural state, and half a pint of cold water was thrown up the rectum, immediately after the operation, in order to prevent inflammation. She was then put to bed, and strict injunctions given to the nurse to keep her in the recumbent posture, in order to assist as much as possible in accomplishing the intention of the operation. Her bowels were kept gently opened with an aperient electuary. Under this treatment she continued three or four weeks, after which time she was dismissed perfectly cured. Some time afterwards she met Dr. Ireland, and gratefully expressed herself for what he had done for her. She felt herself perfectly cured of her former unpleasant complaint, and never was better in her life.

The simplicity of this operation, in my opinion, recommends it as being much preferable to the diminution of the calibre of the vagina by means of caustic applications. It is not always in the power of the operator to limit, according as he wishes, the influence of the latter remedy, so that caustics produce inflammation and irritation beyond the part which we wish to destroy. This can be witnessed in issues made with potassa fusa, where an extensive redness and frequently extensive sloughing supervene on the application of this agent. I have at present under my care a case illustrative of this.

I agree with Mr. Hawkins, that "excision is preferable to the application of caustic." "Dr. Moore considered neither operation admissible in the majority of cases. Members had assumed that prolapsus of the womb always depended on relaxation of the walls of the vagina." This, to say the least of it, is certainly not very complimentary to the members; for I should really think the man's experience in the diseases of females must be very limited indeed, who can attribute *every* case of prolapsed womb to relaxation of the vaginal parietes; were such the case, prostitutes would be greater sufferers from this complaint than any other class of females; yet such is not found to be the fact. Almost every case certainly is pro-

duced by flaccidity of the round and broad ligaments of the womb, together with a relaxed state of the walls of the abdomen, frequently brought on by want of proper bandaging during confinement; still this is no argument against Dr. Marshall Hall's operation. In the treatment of severe uterine hæmorrhage we should be seldom successful did we omit plugging the vagina, though few members, I believe, would attribute the cause of the hæmorrhage to the egress afforded by this organ.

I look on the operation as a salutary means of removing a very great source of misery, and as such should seldom hesitate in performing it, provided the patient was past child-bearing, excepting those cases where the female has made up her mind to become a disciple of Malthus. I remain, &c. &c.

JOHN JOSEPH HELY.

Foley-place, May 22, 1839.

LEPROSY.

REPLY OF DR. JONATHAN GREEN TO DR. HANCOCK.

To the Editor of THE LANCET.

SIR:—In your Number of the 4th inst. you did me the favour to insert a paper of mine, headed "Cases of Leprosy," which has drawn forth from Dr. Hancock some remarks, inserted in your Number of the 18th inst., apparently in confutation of what I had advanced. In hopes of making the subject more clear, I beg to be again favoured with room for two or three paragraphs.

My paper was confined exclusively to lepra, the diagnosis of which I briefly gave as follows:—"It is not contagious, nor is it the loathsome disease we are apt to associate with it in our minds; it is never attended with oozing or abundant moist discharges, so common with many of the skin diseases. Its never-failing characteristics are the *circular* form of the spots or patches, the depressions in the centre of these, the raised red edges, and the abundant desquamation of clean, shining, transparent scales, which are continually being thrown off from the parts affected." Other diagnostics might have been added, but these I thought amply sufficient. In a chart of the skin diseases, published by me ten years ago, lepra is briefly defined as a "chronic inflammation of the skin, almost always in *round* patches, surrounded by a reddish prominent circle, scattered over the surface, and of which the development has not been preceded by vesicles or pustules." These distinctive characters I believed to be familiar with the profession, at least so with dermatopathologists.

I am sorry not to agree with Dr. Hancock, whose views of lepra seem peculiar, as he would denominate the disease the subject of my paper "psoriasis inveterata;" this latter disease is not unfrequently concomitant with lepra; they may be deemed twin diseases, but each distinct of its kind. Psoriasis is always irregular in shape, not rounded, nor have the patches the raised red edges. There are no depressions in the centre of the patches of psoriasis; the whole patch is a continuous raised rough surface, commonly intersected with fissures, or cracks, more or less deep or painful. Lepra, in its progress towards cure, gets well from the centre, outwards; psoriasis, on the contrary, gets well from the edges towards the centre.

I last year had a patient with psoriasis inveterata of both lower extremities; the disease was continuous to high up on the thighs; there was no part of this affected surface where the healthy skin could be seen, as would have been the case in lepra; on the contrary, to use a homely term, the parts seemed as though they had been roughly plastered over with some shining and whitish-coloured mud.

Dr. Hancock says, "It was the writers of the last century who, misunderstanding or disregarding the descriptions of lepra, arabum, græcorum, and elephantia, as given by Aræteus, by Rhazes and others,—it was those writers, I say (of the last century), who led to the chaotic confusion, and the grossest errors on the subject; and even at the present day, the disease known here, and described by our systematic writers under the name of leprosy, has, in reality, no affinity with the genuine lepra, lepra arabum, or elephantia of the Greek writers."

To this statement I cannot concede, and believe that no such confusion or error is manifest to those persons who duly lend their minds to the subject of cutaneous diseases. The physical signs of no class of diseases are more evident, nay palpable, and none more easily to be understood, as far as regards their classification and nomenclature, as they are now arranged; and in achieving this great object, of all names, foreign or domestic, Willan's must always stand out boldly pre-eminent. With the moderns the lepra arabum, and the lepra græcorum constitute quite a different order, far removed from the squamæ; the former being a disease in which the skin is not primarily affected, but as the disease proceeds the skin becomes dusky, or olive coloured, and greatly thickened, without showing other cuticular disorganisation; it is the deeper subcutaneous congeries of vessels, and the whole corion, that are implicated, as has been shown by repeated dissections. It may be considered as a peculiar enlargement of certain parts, or limbs, rare in this country, but yearly becoming more frequent in hot climates, and, as a type, is known almost everywhere as the Barbadoes

leg. The latter, lepra græcorum of former writers, is a tubercular disease of extreme development; the tubercles may be felt in the subcutaneous tissue, seen also on the cuticle, level or raised, of various degrees of induration and colour, some being soft, others hard, some suppurating, some in a state of ulceration, and others covered with eschar; and tubercles in a similar state are commonly evolved throughout the internal mucous membranes. During the last seventeen years I have had under my care six cases of these two latter-named diseases (the elephantia), which are recorded in the "Lond. Med. Gaz.," Feb. 23, 1839.

It was the consideration of the value of your pages that prevented me from going more into detail in my last communication; this, therefore, is a little justice to myself, and may be an explanation due to Dr. Hancock; and I have only to add, that I cannot, with him, rest my judgment on what is handed down to us relative to these diseases by Aretæus, or Rhazes, or any other Arabian or Greek physicians, as I believe more modern pathologists have very much the advantage of the fathers of physic.

JONATHAN GREEN, M.D., &c.

Great Marlborough-street,
May 24, 1839.

THE RESINOUS PORTION OF OPIUM.

To the Editor of THE LANCET.

SIR:—You inserted in THE LANCET of the 6th of April last an account of Mr. Squire's new preparation of opium called the *bimeconate of morphine*, in which was a letter of mine addressed to that gentleman, describing the effect it had produced on me in comparison with the *acet. morph.*, *liq. opii sedat.*, and other preparations of opium. This, with previous reflections upon the effect of opium generally, has induced me to resume my pen, and to address to you a few of the thoughts that have suggested themselves to me on the subject, which I conceive may lead to beneficial consequences to the community at large.

On reflecting with strict scrutiny on the effect that taking opium had produced on me, the idea suggested itself that there was a point of the greatest interest connected with the use of that drug, which ought to form the subject of a thoroughly critical investigation by the medical profession,—to discover, if possible, whether the deadly quality of the opium lies in the *resinous dross* or in the *drug generally*; and if in the latter, in what comparative proportion between the primitive and refined state.

The curative effect of opium being so much greater the more it is purified, and the preparations of it in a solid state being less efficacious than those in a fluid one, is it not reasonable to suppose that a very great portion, if not the whole, of its venomous quality lies in the dross, or resinous particles? And is it not a reason to be adduced as a further argument in proof of the same opinion that a much greater proportionate quantity of the purified may be taken ere it produces a nausea equal with it in its impure form, and that the nearer it approximates to its original, or natural state, the stronger will be the nausea?*

An old friend of mine, the late S. Wadd, Esq.,† who was not only a member of the medical profession, but one of its ornaments also, used to take laudanum for the gout in what was, at the time, considered large doses. Upon being remonstrated with for so doing, he used to reply that he was convinced they were all yet ignorant of the great virtues of that drug; that the constitution was not injured in the use but the abuse of it; and the time would arrive when it would be administered in doses the bare thought of which alone would make the (then) present practitioners to turn up their eyes with wonder and affright.

My case has fully verified the prophecy; and I must confess that it was the recollection of what Mr. Wadd had said that led me to watch with a more nice observation than otherwise I should have done, the effect which opium had upon me when first I began to take it; and from every sensation produced I am inclined to hold the opinion that the resinous part will be found to be an antidote to the curative portion, if only inasmuch as the nausea produced must cause an irritation in the intestinal canal, and, however slightly, retard the wished-for effect. Yet, what can cause the sensation of nausea if it be not the *extra poisonous* quality contained in that constituent of the drug?

I am almost confident that it will be found upon investigation that although opium, generally, even in the purest state that it can be brought to may contain some poison, yet it will not, in the refined state, be of that deadly nature which it has hitherto been considered to possess, but that the strength

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* Another reason which makes it more advisable to administer opium in the fluid state in preference to the solid is, that the latter will occasionally pass the intestines undissolved. I recollect a case of severe tetanus, some years back, for which large doses had been taken; the patient sunk under it, and a post-mortem examination was held on the body, when three of the opium pills were found whole in the stomach, although the patient had not taken any for full forty hours previous to his decease.

† Father to the late W. Wadd, Esq., author of a medical work on Obesity, and several others.

of the deleterious matter lies in the resin or refuse; as a further proof of what has been advanced, I can state that the less the opium is purified the longer it is before the desired effect is produced, and when that is accomplished the patient does not enjoy so calm and natural a sense of repose as he does from having taken the better and more purified preparations.

I shall only add that observing in Dr. A. Todd Thomson's report on the bimeconate of morphine that he had administered it in conjunction with the camphor mixture, I determined to try it so combined, and found it to produce a most happy result, having caused a quicker and rather stronger effect. I am, Sir, yours most obediently,

HENRY BRANDON.

14, Percy-street, Bedford-square,
May 1, 1839.

Practical and Surgical Anatomy. By W. J. ERASMUS WILSON, Lecturer on Practical and Surgical Anatomy and Physiology. 8vo. pp. 492. London: Longman, Orme, and Co.

THE excellency of such a work as this cannot depend on any originality of fact; on any novel truths or splendid hypothesis, but on the number, the nature, and the arrangement of those facts already known; upon the reproduction of truths and details connected with anatomy and surgery in such form that they shall give the student clear and permanent impressions. Nor is this selection, condensation, and arrangement of the various details of anatomy, and the reference they bear to surgery, of light moment. On our first impressions much depends, and he who commences the study of his anatomy with confused and ill-arranged ideas, let him not suppose that he has merely lost his first season; on the contrary, he will painfully find in the second that Locke somewhat too boldly advanced his doctrine, that the mind was a sheet of white paper, or wax; if it have the one property of readily receiving impressions, it has another additional, and sometimes very inconvenient one, that of retaining more or less clearly imprinted all that has once been traced.

In fact, to obliterate erroneous views, or give clearness to ideas once confused, are perhaps the most difficult tasks we ever have to perform, infinitely more so than to acquire new matter, however abstruse or elaborate.

It is, indeed, in this correction of erroneous views, in the substitution of accuracy of detail and clearness of arrangement, for vagueness and confusion, in our materials for thought and judgment, that man's second and most valuable education consists,—an education which generally commences as soon as we leave schools and preceptors; the nature of this labour, to which all men insensibly feel bound,—to which all men have earnestly devoted themselves, who have ever accomplished anything, whether in science or in the world, depends essentially upon the arrangement and precision of previous knowledge; where these qualities are much wanting the labour is long and painful.

In this view, in order that the elementary education of the professional student may not require to be recommenced at a period when the labour and time might otherwise be more fruitfully bestowed, we consider it of the last importance that all works intended for his use, particularly those which are to guide him in the acquirement of a practical knowledge of anatomy, should present all the leading facts, and in such lucid order as shall essentially tend to leave clear and accurate impressions on his mind in connection with each part or branch of the subject.

The tabular form by which Mr. Wilson seeks to afford a mechanical aid to the relative position of parts, the division of arteries, &c., if not perfectly new in its application, has certainly the merit of excellent arrangement; and although nothing can be more useless, not to say dangerous, than "anatomy by rote," we do not look upon these helps, or aids to memory, as likely to lead to this result; some such aids, in truth, are absolutely necessary at the commencement of a student's anatomical studies, to give consistence and order to the multifarious forms, tissues, and relative positions which he is rather suddenly called upon to grasp in his mind, and retain in such manner as may be capable of future application.

As a specimen of the mode in which Mr. Wilson handles his subject, we extract the following description (pp. 20 and 21) of the femoral artery:—

"The femoral artery runs down the inner side of the thigh, from Poupart's ligament, at a point exactly midway between the anterior superior spinous process of the ilium and symphysis pubis, to the hole in the adductor magnus, at the junction of the middle with

the inferior third of the thigh. The femoral vein is, at first, to the inner side, and upon the same plane with the artery; but, lower down, the vein becomes placed behind the artery, and retains that relation throughout the rest of its course.

"*Relations.*—The upper third of the femoral artery is superficial, being covered only by the integument and superficial and deep fasciæ. The lower two-thirds are covered by the sartorius muscle. To its outer side the artery rests first against the psoas, next against the rectus, then against the vastus internus. Behind it has, first, the body of the os pubis, then the tendon of the psoas and iliacus; it is next separated from the pectineus by the femoral vein, profunda vein and artery, and then lies on the adductor longus to its termination; near the lower border of the adductor longus, it is placed in an aponeurotic canal, formed by an arch of tendinous fibres, thrown from the border of the adductor longus and the border of the opening in the adductor magnus, to the side of the vastus internus.

"*Plan of the Relations of the Femoral Artery.*

FRONT.
Fascia lata.
Saphenous nerves.
Sartorius.

INNER SIDE.		OUTER SIDE.
Superiorly, the Femoral Artery.		Psoas.
Femoral veins.		Rectus.
		Vastus Internus.

BEHIND.
Os Pubis.
Tendon of psoas and iliacus.
Femoral vein.
Adductor longus."

And this, again, from the introduction to the neck.

"The integument which has already been partly removed from the neck, may now be dissected back altogether, bounding it by an incision made along the line of the clavicle. The superficial fascia is next to be removed, and with it the platysma myoides, noting the direction in which its fibres run. The deep fascia is thus brought into view, extending from the border of the trapezius to the middle line on the front of the neck. In relation with this fascia on the side of the neck are certain parts which demand the student's especial attention; they are,

The external jugular vein,
The ascending branches of the cervical plexus, viz.:—
Superficialis colli,
Auricularis magnus,
Occipitalis minor.
Sterno-mastoid muscle.

"The external jugular vein lies upon the deep fascia. The nerves lie partly between the two layers of the deep fascia and partly superficial to them. The muscle is between the two layers, being the cause of their separation.

"The external jugular vein (*fig.* 14, 8) is the superficial venous trunk of the neck; it receives the returning blood from the exterior of the side of the head, being formed by the

Temporal vein,
Internal maxillary,
Posterior auricular,

and, near to the clavicle, is joined by cutaneous veins from the back of the neck. Immediately beneath the parotid gland it communicates with the internal jugular vein.

"*Course.*—Emerging from the parotid gland, in which it lies imbedded, it descends somewhat obliquely along the side of the neck and behind the clavicle to the subclavian vein.

"*Relations.*—It lies upon the sheath of the sterno-mastoid muscle for nearly its whole course, being placed for a short space to its anterior border above and upon its posterior border below. It is accompanied by the auricularis magnus nerve, and is covered by the platysma muscle, enclosed between the two layers of superficial fascia.

"*Operations.*—Now, let us suppose that the student were called upon to open the external jugular vein, what would he cut through? Why, through the

Integument,
One layer of superficial fascia,
Platysma,
The other layer of superficial fascia,
The vein.

But here a very important surgical question arises—in what direction should he carry the point of his lancet? Why towards the back of the ear, in the direction (*fig.* 14, 10) of the sterno-mastoid muscle. He will thus cut across the fibres of the platysma (9); these will retract, the wound will gape, and the blood flow. If he should make his cut in the opposite direction, i.e. parallel with the fibres of the platysma, the fibres acting spasmodically will be drawn close together and close the wound."

Our own views, which we have expressed in the preceding observations, seem to be those of the author in one essential point; thus we find, after describing the triangles of the neck:—

"We would not counsel the student to learn up the contents of these triangles by rote; the notice of their contents is meant chiefly for the dissector, who, in reading each structure, should seek for it in its appropriate place. The names of the regions carry with them the best idea of their principal features, and these the least attentive learner cannot fail of recollecting. The use of a good knowledge of the triangular spaces is its application to the operations for ligature of the arteries of the neck."—p. 175.

We observe in this work, moreover, that two important principles have been acted

upon—the one is, constantly to associate in the student's mind the practical importance of the anatomical knowledge he is acquiring, by referring to the surgical operations in each region, and giving a clear but brief description of their mode of performance, and the dangers or errors to be avoided. We do not always agree with Mr. Wilson as to the best mode of performing these operations, but the principle that has guided him in thus placing the ultimate object of interest, the surgery, in juxta-position and direct relation with the more dry details of anatomy, is good, and has been carried out in a manner which cannot fail to prove useful to the student. The work is well adapted for the guidance and instruction of the anatomical student; nor ought we, in summing up its merits, to forget the diagrams, which are valuable additions to the various other means resorted to, in the endeavour to fix the most important parts clearly in the mind's eye; they are both superior in design and execution to those which have hitherto been introduced into class-books. It remains only to add, that after careful examination we have no hesitation in recommending this work to the notice of those for whom it has been expressly written, the students, as a guide possessing very superior claims, well calculated to facilitate their studies, and render their labour less irksome, by constantly keeping before them defined objects of interest.

MR. COOPER AND MR. FAGAN.

To the Editor of THE LANCET.

SIR:—At your request I beg to place before the readers of THE LANCET a statement of the facts connected with the publication of the case of John Fagan, who was lately a patient in University College Hospital. The case in question was received from the gentleman who usually furnishes reports to THE LANCET from that hospital, and the heading which has excited the ire of Mr. Samuel Cooper, was affixed by me, as sub-editor of THE LANCET, while the article was passing through the press. On reflecting on the correctness of that heading, I see nothing in it which is not consistent with probability. The patient himself states that for the last eight years Mr. Cooper was in the habit of passing bougies into his bladder. An impression remains on the mind of every one who has read the case, that Mr. Samuel Cooper was the person alluded to in the expression "Oh, Sir, Mr. Cooper put that in;" and I naturally drew the same inference, the more readily that I knew of no one who was more likely to have "put that in" than the senior surgeon of the hospital. As to the charges of "interpolation," "calumnies," &c. *in the report*, I have simply to remark that such allegations are not only false, but made by persons who must have known them to be untrue. I remain, Sir, your obedient servant,

P. HENNIS GREEN.

49, Essex-street, Strand,
May 26, 1839.

LETTER FROM MR. HARRISON ON AN INVESTIGATION AT THE WESTMINSTER HOSPITAL.

To the Editor of THE LANCET.

SIR:—Observing in your Number of Saturday last a report (?) of the proceedings which took place in the Board-room of the Westminster Hospital, on the 30th of April, I beg leave, through the same medium, to assert unreservedly that the motion I then submitted to the Board of that charity was in nowise like to the one put into my mouth by the governor-reporter, whom I therefore accuse of perverting the truth. † * * * *

Having now made the assertion, I shall prove it, and without entering into further discussion, merely refute the report (?) of the writer.

Reporter's version of my Motion.

"That an inquiry be made into the conduct of Mr. Hale Thomson, the assistant-surgeon, for tapping a hydrocele in a patient whose testis was affected with fungoid disease."

True Motion, as copied from the Minutes of the Board, April 23rd.

"That at the next meeting (which was the 30th) inquiry be made whether any consultation was held previous to the operation on John Dauzi, who died on the 14th inst., and what the *nature of the disease was calling for the operation.*"

Now, any impartial reader will immediately perceive the immense difference between the two motions. In the true one the *conduct* of Mr. Hale Thomson is not even alluded to, nor does it state that he tapped a hydrocele; for the words of my motion expressly ask the nature of the disease, which appeared essential, as on the book of the hospital the patient was described to have been admitted for a "*Fungoid Disease of the Testicle*;" and when I heard that a

† As the name of the reporter was not attached to the communication in question, we object to publish the guess and allusions of Mr. Harrison, though we readily insert his correction of the misstatement.—ED. L.

man so admitted had been *tapped* for *hydrocele*, I did think it high time that some inquiry should be made into the subject, especially as the man died five days from his admission, and not five days after a "second operation" performed "some days" after the first, and which, *en passant*, is another proof of the reporter's accuracy.

* * * * *

I remain, Sir, your obedient servant,
C. H. Rogers Harrison.
18, Southampton-street, Fitzroy-square,
May 29, 1839.

MEDICAL SOCIETY OF LONDON.

May 27th, 1839.

The Society held its last meeting for the session this evening. The last two meetings have offered but little to record. The greater part of the two evenings was occupied by a discussion respecting syphilis, in which the most prominent question was that of the occurrence of secondary symptoms without the presence of a primary sore. A case of some interest was related, in which secondary symptoms, of an alarming character, occurred in a lady, where there was no evidence to prove that the patient had suffered from any primary affection. Other questions were also mooted, but we have on other occasions reported discussions on the same subjects.

UNIVERSITY COLLEGE HOSPITAL.

(*Conclusion of the case of T. W., from p.* 320.)

AMPUTATION.—SECONDARY HÆMORRHAGE.—LIGATURE OF THE COMMON FEMORAL AND THE EXTERNAL ILIAC ARTERIES.

T. W., it will be recollected, suffered amputation of the thigh for solid œdema of the leg, on the 4th of February. In consequence of the occurrence of secondary hæmorrhage, it was found necessary to secure the common femoral artery, just below Poupart's ligament, on the 12th. Hæmorrhage occurred on two or three occasions, but not to such an extent as to warrant any interference until the 16th of March, when profuse hæmorrhage came on, and rendered ligature of the external iliac necessary. Our report of the case closed on the 25th of March, when he was doing well. We have little to add. The ligature came away kindly on the 1st of April. From the weakened state of the patient, the repeated losses of blood, and the necessary frequency of the operative means, the stump did not heal favourably; part of the bone protruded, and a portion exfoliated.

April 18. To-day Mr. Liston took away the portion of projecting bone.

May 28. Since last report nothing worthy of comment, or of recording, has occurred. The patient, throughout the entire course of events, has shown remarkable firmness, and his spirits have seldom been depressed. Since the removal of the bone he has been gradually improving, and may now be considered perfectly convalescent. It is unnecessary to repeat here such observations as have been made by Mr. Liston, respecting this interesting case. He has frequently alluded to it in his lectures on other cases, which we have already recorded in The Lancet.

CÆSAREAN OPERATION.

Not long since M. P. Dubois performed this operation at the Clinical Hospital, Paris, of which the following is a report by the operator:—

Rosine Rignier, 23 years of age, three feet three inches in height, was admitted in the hospital on the 24th of January, 1839. None of the patient's family were below the middle size, and up to the age of nine years the child did not present anything abnormal in appearance or form. About this time she was attacked with eschars on various points of the body; different portions of the osseous system were removed, and it was only after the lapse of four years that the wounds were completely healed. From this time the child ceased to grow, with the exception of the head, whose volume appeared to be excessive. About ten months ago the parents of the girl made an engagement for her with a man who gained his livelihood by exhibiting "phenomena" to the vulgar; the girl soon became pregnant, in consequence of a speculation of her master, who thought that the accession of an infant dwarf would add mightily to the interest of his show.

On her admission into hospital the date of conception was supposed to be about eight months back. Labour-pains set in on the 28th of March, and on the 29th the operation was performed, in the presence of a crowd of spectators. The first incisions having exposed, through the linea alba and peritoneum, the body of the uterus, a quantity of intestine, together with the bladder, immediately escaped through the wound. All attempts to return them into the abdominal cavity were fruitless, and as vomiting and hiccup, with slight faintness, set in, the bundle of intestines was pushed aside, and the anterior wall of the uterus divided. A considerable jet of blood immediately followed, from the insertion of the placenta, but the fœtus was soon extracted, and the uterus at once closed on itself. As the patient was extremely feeble, the intestines were now returned into the abdomen without being cleaned, and a few points of suture were applied. The general surface, which

was at first cold, recovered its heat after the lapse of an hour; the vomiting was arrested by ice-cold drinks, and an opiate enema was thrown up.

The patient passed a quiet night, but the vomiting returned on the following day; the abdomen became tumid and painful; some leeches were applied; these did not produce even temporary relief; the vomiting was now constant; the face much altered; the pulse extremely feeble; and the patient sunk forty hours after the operation. On examining the body it was found that a commencement of union had taken place in the incision through the abdominal walls, to which a portion of the small intestine was loosely adherent. The remaining portion of the bowels was coloured from imbibition of a small quantity of effused blood, and the only traces of inflammation were some shreds of gelatinous effusion, which united the intestinal folds together. The antero-posterior diameter of the inlet of the pelvis was two inches five lines; the transverse four inches. At the outlet of the pelvis the measurements were,—antero-posterior, 2.6; transverse, 3.2.—*Bul. de l'Acad. de Medec.*, May 15.

MEDICAL ATTENDANCE ON MOTHERS OF BASTARDS.

To the Editor of THE LANCET.

SIR:—I am desirous, through the medium of your Journal, to bring under the notice of the Council of the BRITISH MEDICAL ASSOCIATION a point of the new POOR-LAW which fatally affects the interests of the medical profession. It appears to me that that part of it which may be called the *bastardy* clauses, has neither been considered nor discussed by the members of the Association, so far as our profession is concerned; I, therefore, consider it to be my duty to point out to them the baneful influence which it exercises over our interests. During the last twelve months I have attended five females in their accouchements of illegitimate children. As yet I have only received payment for one, nor do I expect remuneration for any more, unless the females give it at their own expense. Now, according to the present state of the new law, these poor unfortunate creatures have, in many instances, no means of commanding any support from the reputed fathers. What, then, is to be done? How are medical men to act under these embarrassing circumstances? Are we, when summoned to attend a female thus situated, to refuse, and leave her to chance in a time of the greatest need, thus bringing public odium on our heads for an apparent want of humanity? Or are we to attend them at a hazard of remuneration?

I presume that when this law was being made its promulgators did not consider (neither did they care, perhaps) what effect it might produce on the prosperity of the medical profession, which a short trial has evidently proved to be a bad one; but one thing they knew, viz., that it was well calculated to produce libertinism and infanticide, a fact which is made manifest by the almost daily occurrence of such cases.

It were well if the Council of the BRITISH MEDICAL ASSOCIATION would give the subject their immediate consideration. I am, Sir, your obedient servant,

E. WILKINSON.

Aspatria, May 21st, 1839.

*** Five inquests were held in the Western Division of Middlesex on the bodies of infants which had been abandoned immediately after birth, in one fortnight of March last.

REMUNERATION OF GENERAL PRACTITIONERS.

ADMINISTRATION OF DRUGS.

To the Editor of THE LANCET.

SIR:—Upon looking over the "British and Foreign Medical Review" for April last, I was struck with the notice of a work of Dr. Henry's, entitled "A Dialogue between a Bilious Patient and a Physician," in which he contends, that in diseases of this description medicines are entirely useless and ought not to be employed. Although not prepared to coincide implicitly with Dr. Henry, I have long been satisfied that, not only in bilious, but in all complaints, drugs are commonly used to a much greater extent than is beneficial to the patient. Dr. Henry enumerates several causes for this evil, but I think omits the principal one, which I "conceive to be the *usual mode of paying general practitioners.*"*

When a patient, bilious or otherwise, goes to a general practitioner, there is usually a tacit agreement between them that, no matter what the case requires, or what curative means the medical man may employ, he is to be paid only for his drugs. If, therefore, he wish to be paid, he must in all cases use drugs; and if he wish to be fairly remunerated for the time and money spent in his education, and his exertions afterwards, he must dose his patients to such an extent that the price of the medicines employed shall pay him. If a general practitioner, paid upon this plan, recommend an alteration in diet, or the use of baths, &c., he will receive no money in return, and perhaps very little credit; for patients are very apt to think they might have done all that without his assistance; even physi-

* There are no general practitioners in Ireland, where Dr. H. resides.

cians are not beyond the influence of this system; they are frequently called in by general practitioners, and the latter will not call in physicians who do not order medicines to such an extent, as shall remunerate them. Physicians, consequently, get as much into the habit of dosing their patients, as general practitioners, and, therefore, commonly follow it up when no general practitioner is employed.

The custom of depending upon drugs, as the principal means of curing all diseases, has become so general in England, that few invalids contemplate the possibility of doing without them; when they go to a physician they always expect a prescription in return for their guinea; and, frequently think themselves cheated if they get only advice as to their mode of living, &c.

I would not have it understood that I wish for medical men to give up the use of drugs altogether; perhaps few persons have more faith in their efficacy than myself, when used with discretion and in appropriate cases; but I wish that medical men should be paid in such a way that they may have no predilection for one class of remedies to the exclusion of others, perhaps more efficacious. I remain, Sir, your most obedient servant,

JOSEPH CURTIS, M.R.C.S.

Camden Town, May 22, 1839.

PRICE OF DRUGS.

MR. ANCELL, the chemist, of Oxford-street, after making some remarks on the errors of the correspondent who recently commented on some supposed blunders in the new Pharmacopœia, which have already been sufficiently criticised, concludes his letter with the following observations, which we extract, as they relate, though briefly, to that important subject, the adulteration of drugs:—

"I am not a medical man, but may, perhaps, be allowed to state that I do not consider the new Pharmacopœia, with its reformed nomenclature, deserving of the attacks that are made upon it. The change must necessarily produce some inconvenience for a time, and perhaps it may be the means of drawing a little more attention to this branch of the profession. Medical men would then be better able to appreciate the quality of medicines, and inferior articles would not be countenanced as they now are. To show the want of this it is only necessary to allude to the great difference in various druggists' prices for articles. I know that *ext. colec. c.* is sold for 9*s.* 6*d.* per lb.; *tr. opii* 2*s.* 4*d.*; *syr. papave*, 10*d.*; *ext. sarsæ*, 10*s.* 6*d.*, &c., and yet who is there that can say any one can be made properly for the money. What regard, then, can be paid to the Pharmacopœia in making them? None whatever. I know not whether those who use such articles get what they ought to have, but I do think, as that work is published not alone for the guidance of practitioners, but as well for the benefit of the public, that all engaged in the business of preparing medicines should be stimulated to adhere to its instructions.

"To those who have the management of charitable institutions I consider these observations particularly applicable, because I know there are some who look to nothing but the price, invariably buying from whatever source may happen to send in the lowest estimate, forgetting that to be obliged to use ten grains of an article where five or less of a better one might suffice, is no economy. On the other hand, the system of 'concentration,' now so general, and the preparing of things in such a way as to render them much more potent than they ought to be, is likewise to be condemned.

"I had always understood that it was the province of the College of Physicians to periodically visit the shops in and about town. This, I consider, if impartially acted up to, a very wholesome custom; but as I never had the honour of a visit, I suppose it is now given up."

QUACK DENTISTS.—*B. J.* attacks the "impostors who call themselves surgeon-dentists." Undoubtedly there are many persons professing to be "dentists" who are at once ignorant and unprincipled, but there are also many highly-respectable men, and well-educated men, pursuing the occupation. *J. B.*, however,—himself a "dentist,"—does not seem to be very well-qualified to assail, anonymously, with the pen, ill-educated men. He writes "impositions has;" "cases that as come;" "had it have been acted on;" "qualified to;" "to large," &c. We add his explanation of the evil, though it does not amount to much:—"The reason that they are so numerous is, in consequence of those individuals who perform the mechanical portion for other dentists, taking young men for a mere trifle, and teaching them the mechanical part, and when their time is expired, they set up and style themselves '*surgeon*-dentists,' without even the slightest knowledge of the surgical part, and but little of the mechanical, so that when applied to they are ashamed to confess their ignorance, and they, therefore, act (ignorantly enough in numerous instances) according to their own ideas, to the great injury of those persons who may have been deluded by the specious and imposing advertisements daily set forth in the public prints, by these daring empirics, very many of whom are Jews, who have found their way into the profession, not from any knowledge, but from sheer impudence, and who sometimes assume names of foreign extraction that they may the better delude the

public into their clutches, that they may the more easily *rob* them, for it deserves no better name. I do hope, Sir, that, under your able advocacy, we shall ere long see the day that shall render it compulsory upon all persons wishing to practise the science, to pass an examination as to their fitness, and to receive a certificate that they are duly qualified to the proper performance of its duties."

TREATMENT OF STUDENTS AT APOTHECARIES' HALL.

To the Editor of THE LANCET.

SIR:—Permit me to make known to the public and the medical profession, the disgraceful conduct of the Society of Apothecaries to the medical students who attend there to register; they are obliged to attend on particular days, and during hours when they ought to be attending to some of the numerous lectures which are forced upon them by the Worshipful Company. It is quite indifferent whether there be few or many students attending to be registered; only *one* person does the work. The anteroom is *the court-yard*, and, with the exception of a few tar-barrels in one corner, there are no seats for any one, and they are obliged to remain in their place until called for, let the weather be what it may. Last year the man who gives the tickets said to a student, in the most impudent manner possible, that "he would be wanted in about *three hours*." The students are treated by the Company worse than school-boys, as the Latin examination pretty well shows. Hoping, Sir, that something will soon be done to remedy this evil, which can be effected by employing more servants to attend to it, I remain your obedient servant,

A MEDICAL STUDENT.

May 16, 1839.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.—From the high-sounding title of King and Queen's College of Physicians, some people are led to suppose that this body is the head of the medical profession in Ireland. This is quite an erroneous impression. This College is a limited corporation, existing under an obsolete charter, inoperative from the absurd and illegal nature of its provisions; it has no power to grant medical degrees, and has no real connection with the University, although its members endeavour, by all means, to lead people to suppose it has. The whole list of members and licentiates scarcely amounts to one hundred; of these, about sixty or seventy only may be considered to be in practice at all in Ireland,—and, perhaps, not more than fifty are really employed, of whom there may be about a dozen in the provinces. On the other hand, there are two hundred and fifty physicians, members or licentiates of the College of Surgeons, and, perhaps, about a thousand more unconnected with that body; and, even in Dublin, there are nearly fifty physicians who have no connection with the King and Queen's College. How utterly absurd, therefore, are their pretensions to be considered the College of Physicians of Ireland.—*Dub. Med. Press*, May 22.

STUDENTSHIPS IN ANATOMY.

THE Council of the College of Surgeons, London, has recently instituted two studentships in human and comparative anatomy, to be held during a term of three years, at a salary of one hundred pounds per annum. Candidates must be members of the College, under twenty-six years of age. Upon the present occasion applications and certificates must be sent in by the 24th of June next. The students so appointed will be occupied in the museum, under the conservators, from ten till four o'clock daily.

TO CORRESPONDENTS.

THE inquiries wished to be made by *Observer* cannot be pressed through the medium of this Journal unless his object is fully stated, and his name and address confidentially communicated to the editor.

Mr. Courtenay has no remedy, and the publication of the correspondence would not supply one. If his evidence would tend materially to alter the decision, a representation to that effect to the Lord Chief Justice of the Court of Queen's Bench would, probably, procure a fresh inquiry. Mr. E. correctly described his powers as an official personage. It is right that he should possess such powers, but it is not certain that in the present instance he did not abuse them.

A Second Year's Student.—The Company wields its penal powers under an *Act*, not a charter, and the Act will not expire by virtue of any happy clause contained within itself. No definite time is fixed for its expiration. The impression is altogether erroneous. The obliteration of the Act from amongst the statutes of the realm rests with the Legislature. The diploma of the University of London will not qualify its holder to practise as an apothecary. Medical students will have ample warning of any material changes in the laws under which medical education is at present regulated.

If *Chirurgus* will send his name and address, confidentially, we may be induced to publish his letter. We may hold the same opinion as our correspondent, but cannot publish his statements upon anonymous authority.